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ABSTRACT

In Jacob Abbott's book, "Marco Paul's Travels on the Erie Canal," Marco's cousin Forester explains to Marco that there are two modes of acquiring knowledge--through books and through observation. Students obtain more complete and meaningful understanding of a topic when provided with experiences that use both primary and secondary sources. This book is one in a series of volumes entitled "Marco Paul's Adventures in the Pursuit of Knowledge." The books are designed not merely to entertain the reader with a narrative of juvenile adventures, but also to communicate as extensive and varied information as possible, in respect to the geography, the scenery, the customs, and the institutions of this country, as they present themselves to the observation of the little traveler, who makes his excursions under the guidance of an intelligent and informed companion. This 4-week lesson plan presents an overview; cites educational objectives; gives time required and recommended grade level; and notes curriculum fit and resources used. The lesson plan gives historical background on the canal; suggests primary source materials on relevant topics; offers sample photo analysis and document analysis guides; and presents information on primary sources. It also enumerates response journal questions for discussing the book and provides a detailed classroom procedure for a chapter-by-chapter discussion of the book. (NKA)

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The Learning Page ... lesson plans

Marco Paul's Travels on the Erie Canal: An Educational Voyage.

By

Janet Williammee and Rhonda King

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The Learning Page?... lesson plans

Marco Paul's Travels on the Erie Canal

Overview

In Jacob Abbott's book, *Marco Paul's Travels on the Erie Canal*, Marco's cousin Forester explains to Marco that there are two "modes of acquiring knowledge" -- through books and through observation. Students obtain more complete and meaningful understanding of a topic when provided with experiences that use both primary and secondary sources. Join Marco on his educational voyage in the 1840s, experiencing the Erie Canal and "lessons in life" firsthand.

Objectives

Students will:

- understand the impact of the Erie Canal on the economic and social growth of New York and the nation;
- use a variety of different resources (people, photographs, maps, text, etc.) in different media (print, music, electronic, video, etc.) to gather and interpret information using established criteria;
- develop an understanding of the diverse social, historical, and cultural dimensions during the early years of the Erie Canal through literature; and
- apply what they have learned by creating a primary source alphabet book on the Erie Canal.

Time Required	Four weeks
Recommended Grade Level	Grades 4-8
Curriculum Fit	New York State History and Geography, Language Arts, Information Problem Solving, and Technology
Resources Used	Student Sources Teacher Sources Materials Examples of Student Work

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The Learning Page... lesson plans

Marco Paul's Travels on the Erie Canal

Resources

Student Sources

- Locks on the Erie Canal
- *Marco Paul's Travels on the Erie Canal*
- Primary Source Materials for Aqueducts
- Primary Source Materials for Boats
- Primary Source Materials for Little Falls, New York
- Primary Source Materials for Maxims
- Primary Source Materials for "Mind Travel"
  - Images from American Memory: Part One
  - Images from American Memory: Part Two
  - Images from the *New York State Historical Association Library*: Part One
  - Images from the *New York State Historical Association Library*: Part Two
- Primary Source Materials for Schenectady, New York
- Primary and Online Source Materials for Train Transportation
- Primary Source Materials for the Transportation Corridor of the Mohawk Valley
- Primary Source Materials for Troy, New York

Teacher Sources

Books

- Abbott, Jacob. *Marco Paul's Voyages and Travels on the Erie Canal*. Interlaken: Empire State Books, 1987.
- *A Canalboat Primer on the Canals of New York State*. Ed. Staff of the Canal Museum. Syracuse: Canal Museum, 1981.

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- Harness, Cheryl. *The Amazing Impossible Erie Canal*. New York: Simon & Schuster Books for Young Readers, 1995.

- Hullfish, William, comp. and ed. *The Canaller's Songbook*. Berkeley Heights: Canal Captain's Press, 1984

- Rinker, Harry L. *"The Old Raging Erie... There Have Been Several Changes:" A Postcard History of the Erie Canal and Other New York State Canals (1895-1915)*. Berkeley Heights: Canal Captain's Press, 1984.

- Stack, Debbie J., and Donald A. Wilson, ed. *Always Know Your Pal: Children on the Erie Canal*. Syracuse: Erie Canal Museum, Inc., 1993.

Magazines

- *Cobblestone: The Erie Canal*. October 1982.

Video

- Lane, Pancho. *Along the Erie Canal*. Ethnoscope, n.d..

Online

- Learning Page Workshop:
    - What Do You See?
    - How Does It Read?
    - What Are Primary Sources?

- Web sites outside the Library of Congress
    - The Erie Canal
    - History of the Erie Canal at the University of Rochester
    - Rochester Images

Materials

- Response Journal Questions

- Evaluation

- Graphic Organizer for "Mind Travel"

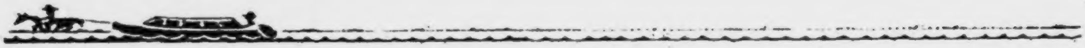
- Graphic Organizer for Chapter IV

Examples of Student Work

- Primary Source Alphabet Book

- Response Journal

- "Word Wall"



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Marco Paul's Travels on the Erie Canal

by Jacob Abbott

Entered, according to Act of Congress, in the year one thousand eight hundred and fiftytwo, by HARPER & BROTHERS, in the Clerk's Office of the District Court of the Southern District of New York.

THE design of the series of volumes, entitled MARCO PAUL'S ADVENTURES IN THE PURSUIT OF KNOWLEDGE, is not merely to entertain the reader with a narrative of juvenile adventures, but also to communicate, in connection with them, as extensive and varied information as possible, in respect to the geography, the scenery, the customs and the institutions of this country, as they present themselves to the observation of the little traveler, who makes his excursions under the guidance of an intelligent and wellinformed companion, qualified to assist him in the acquisition of knowledge and in the formation of character. The author has endeavored to enliven his narrative, and to infuse into it elements of a salutary moral influence, by means of personal incidents befalling the actors in the story. These incidents are, of course, imaginary, but the reader may rely upon the strict and exact truth and fidelity of all the descriptions of places, institutions and scenes, which are brought before his mind in the progress of the narrative. Thus, though the author hopes that the readers who may honor these volumes with their perusal, will be amused and interested by them, his design throughout will be to instruct rather than to entertain.

CONTENTS

Chapters

1. Planning
2. The Packet
3. Getting on Board
4. Night
5. Canajoharie
6. Honesty
7. The Pass of the Mohawk
8. Perplexity
9. A Project
10. The Steersman
11. The Ride
12. The Outlet

Principal Persons

MR. BARON, a merchant of New York.
MARCO, his son, a boy about twelve years old.
JOHN FORESTER, Marco's cousin, about nineteen years old.

Marco is traveling and studying under Forester's care.

Text conversion by Erica Macy and Matthew Poore, University of Rochester.
HTML and site maintenanance by Sara Pierce
18 Jun 1996

Marco Paul's Travels on the Erie Canal: An Educational Voyage

By Janet Williammee and Rhonda King
American Memory Fellows 2000

Enter

The ErieCanal

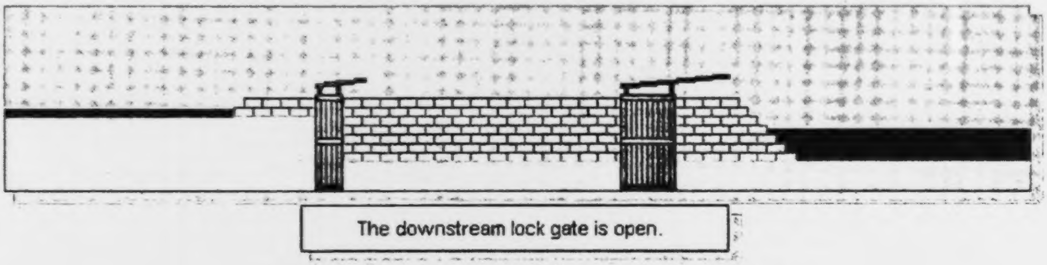
Home | Canal System | Locks | Images | Maps | Books and Videos | Music | Links

Locks on the Erie Canal

The Erie Canal rises 566 feet from the Hudson River to Lake Erie through 57 (originally 83) locks. From tide-water level at Troy, the Erie Canal rises through a series of locks in the Mohawk Valley to an elevation of 420 feet above sea-level at the summit level at Rome. Continuing westward, it descends to an elevation of 363 feet above sea-level at the junction with the Oswego Canal, and finally rises to an elevation of 565.6 feet above sea-level at the Niagara River.

How a Lock Works

In the early days of the canal, when horses and mules walked the towpath, this is how a canal boat passed through a lock:

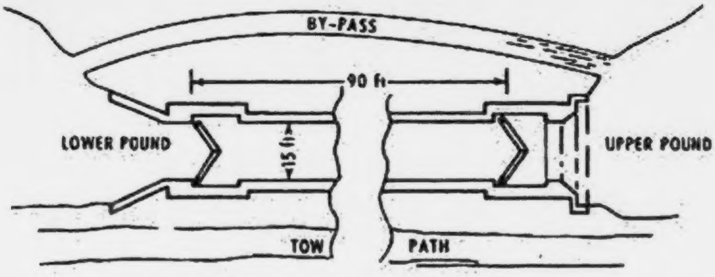


(Animated gif by Terry Pepper; used with permission)

Today, boat owners are required to follow certain rules to "lock through". The official New York State Canal System web site has a page explaining How to "Lock Through" Canal System Locks.

Size of the Locks

The original Erie Canal locks were 90 feet long and 15 feet wide, and were designed for a canal boat 61 feet long and 7 feet wide, with a 3 1/2 foot draft.



LOCK OF ORIGINAL ERIE CANAL

The locks of today are 328 feet long and 45 feet wide, and can accomodate vessels 300 feet long and 43.5 feet wide. See the Canal Profile for the height and location of the current locks.

Erie Canal home page
New York State Canal System | Erie Canal Images | Erie Canal Maps | Locks on the Erie Canal
Books and Videos about the Erie Canal | Music about the Erie Canal | Erie Canal Related Links

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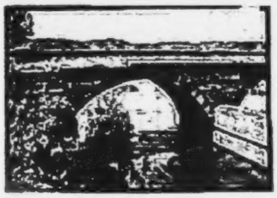
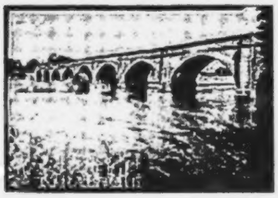
Marco Paul's Travels on the Erie Canal

Primary Source Materials for Aqueducts

Images from American Memory

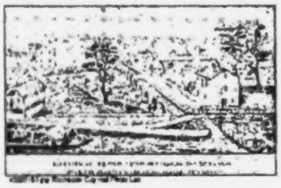


Erie Canal,
Schoharie Creek Aqueduct



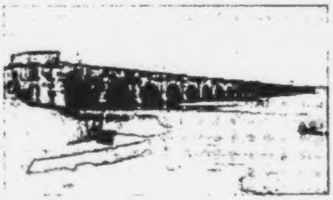
Erie Canal,
Schoharie Creek Aqueduct

Click on image to go to enlarged image at online site.



First Erie Canal aqueduct, 1820, from the collection of the Rochester City Hall Photo Lab (Courtesy of *Rochester Images*)

View of Aqueduct bridge at Rochester (Old) from History of the Erie Canal (Courtesy of the History Department, University of Rochester)



Aqueduct over Seneca River at Montezuma from History of the Erie Canal (Courtesy of the History Department, University of Rochester)

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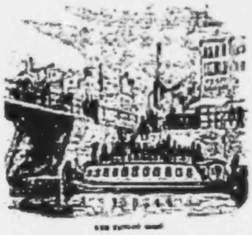
Marco Paul's Travels on the Erie Canal

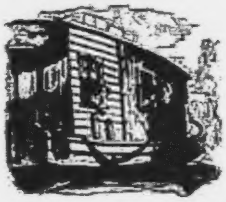
Primary Source Materials for Boats

Images from the Book *Marco Paul's Travels on the Erie Canal*

Packet boat on page 40 *Marco Paul's Travels on the Erie Canal* by Jacob Abbott (Courtesy of Empire State Books, an imprint of Heart of the Lakes Publishing, PO Box 299, Interlaken, NY 14847-0299)

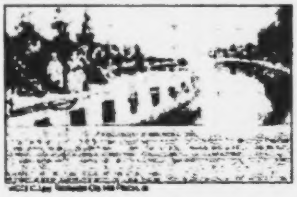


Packet boat on page 44 *Marco Paul's Travels on the Erie Canal* by Jacob Abbott (Courtesy of Empire State Books, an imprint of Heart of the Lakes Publishing, PO Box 299, Interlaken, NY 14847-0299)

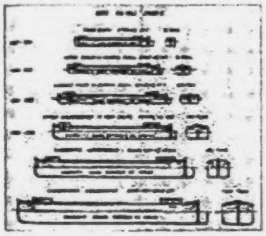


Line boat on page 202 *Marco Paul's Travels on the Erie Canal* by Jacob Abbott (Courtesy of Empire State Books, an imprint of Heart of the Lakes Publishing, PO Box 299, Interlaken, NY 14847-0299)

Click on image to go to enlarged image at online site.



Packet boat from the collection of the Rochester City Hall Photo Lab (Courtesy of *Rochester Images*)



History of canal boats, 1899 (Courtesy of The Erie Canal)

Packet boat from the collection of the Rochester City Hall Photo Lab (Courtesy of *Rochester Images*)

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Marco Paul's Travels on the Erie Canal

Primary Source Materials for Little Falls, New York

Images from American Memory

Erie Canal at Little Falls

Little Falls, N.Y.

The Locks at Little Falls

Stereoscopic Views
of Little Falls, New York

The Falls at Little Falls, N.Y.

Stereoscopic Views
of Little Falls, New York

Click on image to go to enlarged image at online site.

Aqueduct at Little Falls from History of the Erie Canal (Courtesy of the History Department, University of Rochester)

Present condition of original Aqueduct at Little Falls from History of the Erie Canal (Courtesy of the History Department, University of Rochester)

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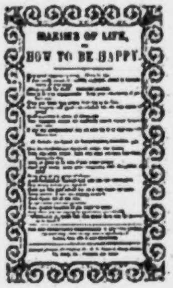
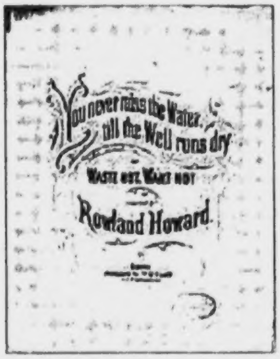
Marco Paul's Travels on the Erie Canal

Primary Source Materials for Maxims



MAXIMS OF LIFE, HOW TO BE HAPPY.

"Maxims of Life, or How to be Happy"

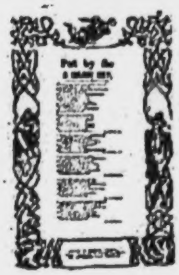


You never miss the Water, till the Well runs dry

Waste not, Want not

Rowland Howard

"You Never Miss the Water Till the Well Runs Dry; Waste Not, Want Not"



"Put by for a Rainy Day"

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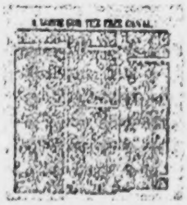
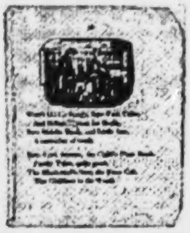
Marco Paul's Travels on the Erie Canal

Primary Source Materials for "Mind Travel" (Part One)

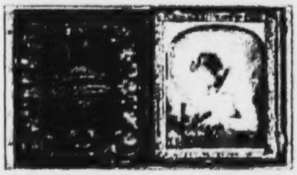


A Voice for the Erie Canal

Bartlett Sewing Machine Co's New Patent Sewing Machines



Poetry Advertising Mahlon Day's Juvenile Bookstore



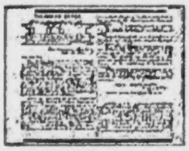
Occupational Portrait of a Tinworker

Editorial Staff of the New York Tribune

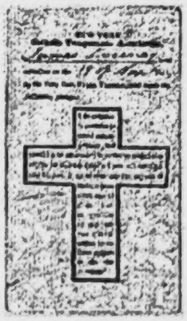
STAGE NOTICE

FARE REDUCED!

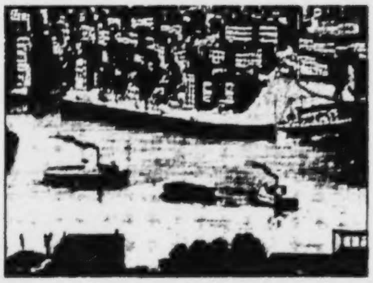
Stage Notice: Fare Reduced



Telegram Extra: Assassination of Abraham Lincoln



Temperance Pledge Filled in by James Sweeney



Albany, New York

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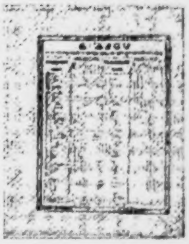
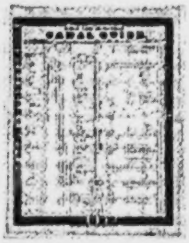
Marco Paul's Travels on the Erie Canal

Primary Source Materials for "Mind Travel" (Part Two)



A List of the Principal Places on the Erie Canal, and Their Distance from Each Other

Valentine, circa 1840



Erie and Junction Canal Guide

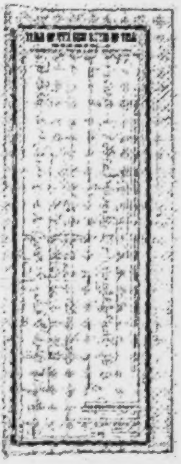
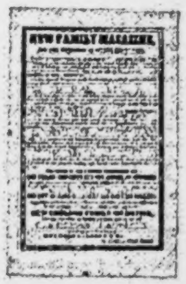


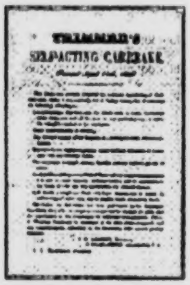
Table of the New Rates of Toll on the Erie Canal

Toys, Toys, Toys!

Campaign Ribbon



New England Family Magazine



Trimmer's Self-Acting Carbrake

New York to and from Albany and Troy

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Marco Paul's Travels on the Erie Canal

Primary Source Materials for "Mind Travel"

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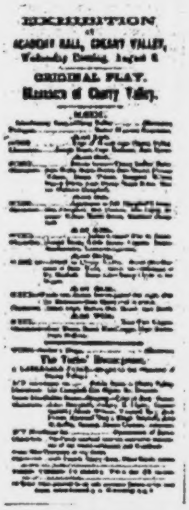
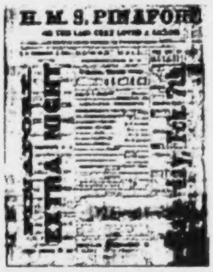
Part One

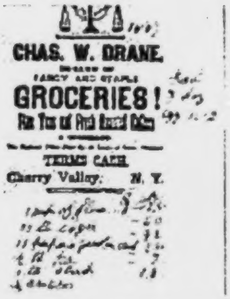


Cherry Valley Massacre Play

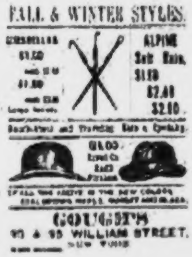


H.M.S. Pinafore

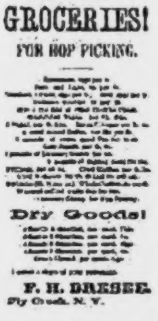
Are you interested? We think you are; in the place where you can save money.



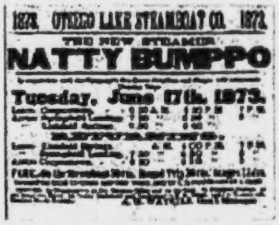
Charles W. Drane Groceries, Cherry Valley



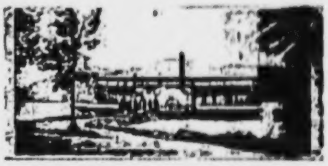
Fall and Winter Styles at Gough's



Price List of Groceries for Hop Picking



Natty Bumpo Broadside



Natty Bumpo Steamboat

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Marco Paul's Travels on the Erie Canal

Primary Source Materials for "Mind Travel"

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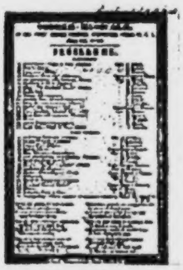
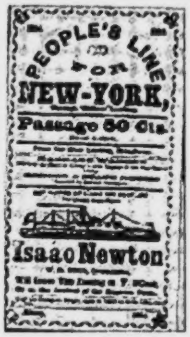
Part Two



Soiree Musicale at Mrs. Cotes' Female Seminary



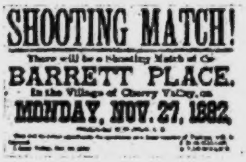
PEOPLE'S LINE FOR

NEW-YORK,

Passage 50 Cts.

Isaac Newton

People's Line for New York on the Isaac Newton at Albany

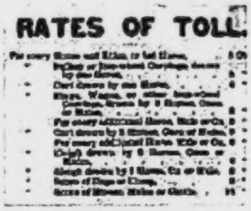


SHOOTING MATCH!

BARRETT PLACE.

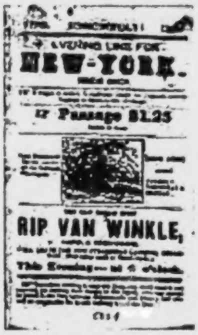
MONDAY, NOV. 27, 1882.

Shooting Match at the Barrett Place



RATES OF TOLL.

Rates of Toll



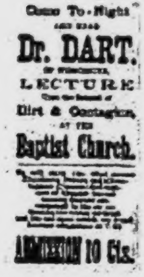
EVENING LINE FOR

NEW-YORK.

Passage $1.25

RIP VAN WINKLE,

New Steam Boat Rip Van Winkle



Come To-Night

Dr. DART,

LECTURE

Dirt & Contagion,

Baptist Church.

ADMISSION 10 Cts.

Dr. Dart Lecture

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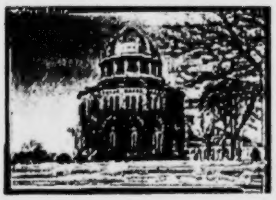
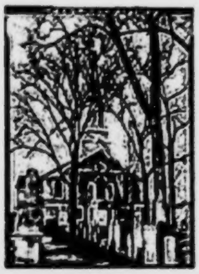
Marco Paul's Travels on the Erie Canal

Primary Source Materials for Schenectady, New York



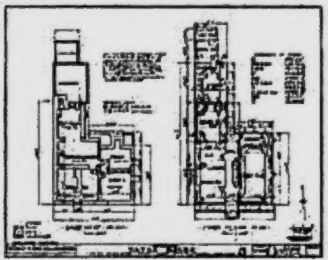
Nott Library at Union College



First Presbyterian Church

Schenectady County Courthouse

Abraham Yates Home



Drawing of Basement and First Floor Plans

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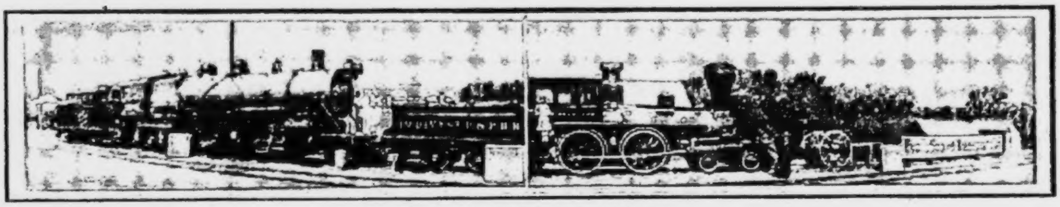
Marco Paul's Travels on the Erie Canal

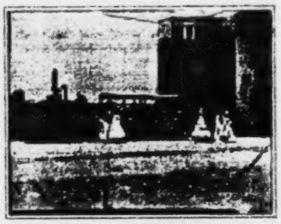
Primary Source Materials for Train Transportation



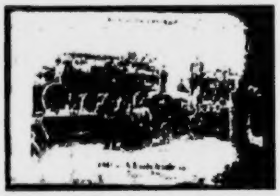
Evolution of Transportation

Occupational Portrait of Three Railroad Workers Standing on Crank Handcar

Cherrelyn Horse Car

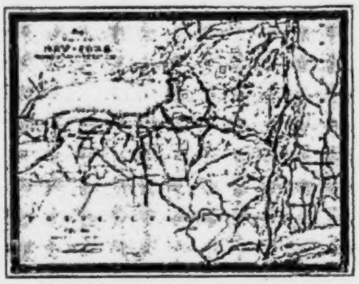


World's Fair, Railroad Pageant.Tom Thumb and Peter Cooper



The Detroit News Timely Topics Old Coach Meets Iron Horse

Locomotive on the Orange and Alexandria Railroad



Map of New-York Showing its Water and Rail Road Lines

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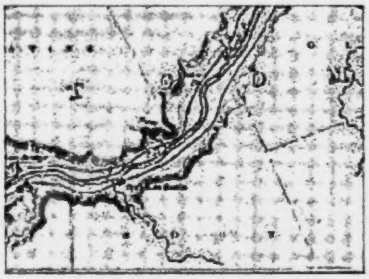
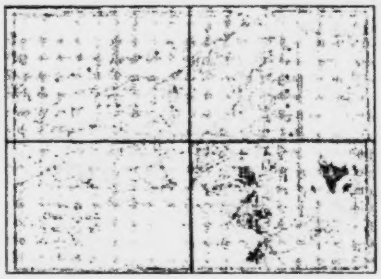
Marco Paul's Travels on the Erie Canal

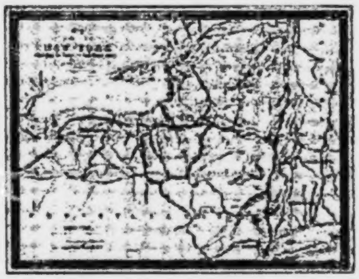
Primary Source Materials for the Transportation Corridor Through the Mohawk Valley



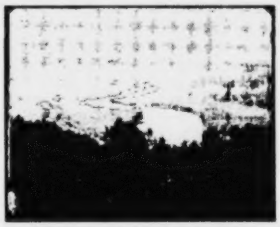
Map of Railroads from Rome to Albany and Troy



Map of NY Exhibiting the Post Offices, Post Roads, Canals, Rail Roads

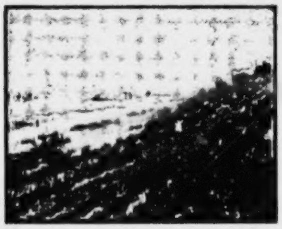


Map of New York Showing its Water and Rail Road Lines



Valley of the Mohawk East of Little Falls

The Mohawk Valley Near Little Falls, N.Y.



Mohawk Valley, Little Falls, West, New York.

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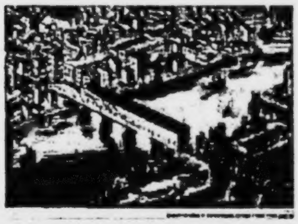
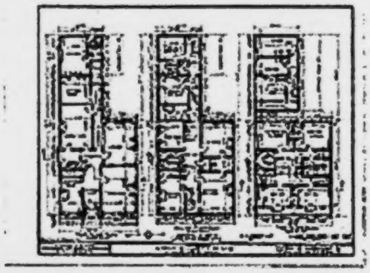
Primary Source Materials for Troy, New York



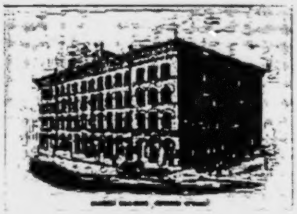
Foot Bridge over the Hudson River at Troy, New York

Church of the Holy Cross

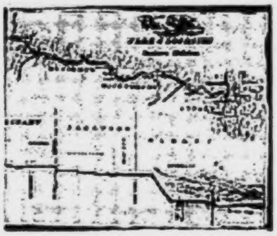


Albert Cluett House

District School No. 1



Gurley Building



Erie Canal, Lock Number 18

Citizens Calendar, 1835

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http://memory.loc.gov/ammem/ndlpedu/educators/workshop/discover/yousee.html

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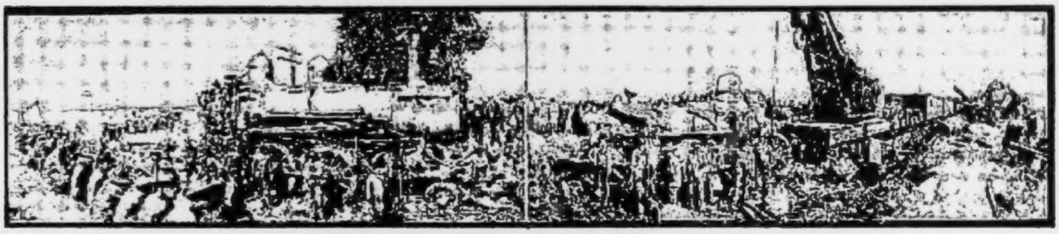
What Do You See?

What Do You See? **Photo Analysis Guide** **Activities**

Do students really see everything that is depicted in a picture or photograph? These activities have been designed to teach students how to critically look at visual images.

Directions: Examine the picture below. Scroll from left to right to view the entire panorama. Using the photo analysis guide, describe what you see in the picture.



(Click on the image for a larger version)

Wreck on I.C.R.R., near Farmer City, Ill., Oct. 6, '09

CREATED/PUBLISHED: 1909 October 6
NOTES: Copyright deposit; International Stereograph Co.; October 11, 1909.
Copyright claimant's address: Decatur, Ill.
Illinois Central Railroad.
No. I.
Cleanup crew and onlookers surround wreckage.

From Taking the Long View: Panoramic Photographs, ca.1851-1991
(http://memory.loc.gov/ammem/pnhtml/pnhome.html)

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What Do You See:
Photo Analysis Guide

What Do You See? | Photo Analysis Guide | Activities

Observation	**Knowledge**	**Interpretation**
Describe exactly what you see in the photo. What people and objects are shown? How are they arranged? What is the physical setting? What other details can you see?	Summarize what you already know about the situation and time period shown, and the people and objects that appear.	Say what you conclude from what you see. What's going on in the picture? Who are the people and what are they doing? What might be the function of the objects? What can we conclude about the time period?
Further Research: What questions has the photo raised? What are some sources you can use to find answers?		

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What Do You See?

Activities

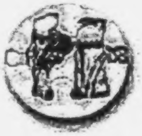
What Do You See? | Photo Analysis Guide | Activities

Match Up!
Match pictures. (Grades 2-5)

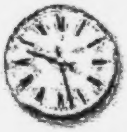
What Is It?
Discover fascinating innovations that changed our lives. (Grades 2-5)

Editorial Cartoons
Find the story in the cartoon. (Grades 5-12)

Coloring Page
Print a picture to color. (Grades K-3)



Counting Puzzle
Put together a picture puzzle. (Grades K-3)



Create a Timeline
Show time through pictures. (Grades 4-12)

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How Does It Read?
Guide

How Does It Read? | Guide | Vocabulary

Directions: Using the journalistic approach of Who, What, Where, When, Why, and How, examine one of the documents on the How Does It Read? page. Use the guide below to describe what you read. Be sure to look at the vocabulary words.

Who is the author or narrator?

Describe any background information you may have found about this person.

Who is the audience?

Why do you think the author chose this audience?

What is the purpose of the writing? Why do you think the author or narrator wrote or spoke about this particular topic?

Where is the setting for this writing?

When was it written?

How does the writing relate to the time period?

Are there any words that are new to you?

What experiences have you had that relate to what you are reading?

How do you feel about what you read? Why?

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How Does It Read?

How Does It Read? **Guide** **Vocabulary**

Do students read "between the lines"? Do they read with thought of finding answers to their own questions? These activities have been designed to teach students how to critically evaluate what is read.

Directions: Using the journalistic approach of Who, What, Where, When, Why, and How, examine one of the documents below. Use the How Does It Read? Guide to describe what you are reading. Be sure to look at the vocabulary words.

For Your Boy - My Boy
BUY BONDS!
BUY BONDS!
HEAR THE BUGLE CALL!

1

For your boy and my boy; Buy bonds; Hear the bugle call, 1918

Egbert Van Alstyne, 1882-1951

Historic American Sheet Music, 1850-1920 (from Duke University)

2

C. W. Post; or, What is this Strange Power?

Cornflake Crusade

By Gerald Carson

Pioneering the Upper Midwest: Books from Michigan, Minnesota, and Wisconsin, ca. 1820-1910

3

Why Women Should Vote

Alice Stone Blackwell, 1857-1950

Votes for Women: Selections from the National American Woman Suffrage Association Collection, 1848-1921

4

CHAPTER XIV Fire Departments of Early Days

Memories; my seventy-two years in the romantic county of Yuba, California.

By W.T. Ellis

California As I Saw It: First-Person Narratives of California's Early Years, 1849-1900

5

Lobo, the King of Currumpaw

Wild Animals I Have Known

By Ernest Seton Thompson

The Evolution of the Conservation Movement, 1850-1920

6

J. W. Wilson Interview

"Twenty Little Froggies"

By. J.W. Wilson

American Life Histories: Manuscripts from the Federal Writers' Project, 1936-1940

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How Does It Read?
Guide

How Does It Read? | **Guide** | **Vocabulary**

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How Does It Read?

Vocabulary

How Does It Read? Guide Vocabulary

apparatus - a set of materials or equipment designed for a specific use, 1628 (date of the earliest recorded use in English)

bivouac - a temporary encampment under little or no shelter, 1702

brigade - group of people organized for special activity, 1637

canon - form of canyon, deep narrow valley with steep sides often with a stream flowing through it (American spelling), 1837

doll up - to dress elegantly or extravagantly, to make more attractive (as by addition of decorative details), 1906

enfranchised - to endow with a franchise as to admit to the privileges of a citizen and especially of the rights of suffrage, 15th century

jollifications - festivity, merrymaking, 1809

Postum - cereal coffee, late 1800's

rudiments - a basic principle or element or fundamental skill, 1548

strychnine - a bitter poisonous alkaloid, used as a poison for rodents, 1819

veritable - capable of being verified, confirmed, 1593

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http://memory.loc.gov/ammem/ndlpedu/educators/workshop/discover/primary.html

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What Are Primary Sources?

What are Primary Sources? | **Pictures as Primary Sources** | **Primary Source Tool Kit**

What are primary sources? How and why would we use them in teaching and learning?

This activity is designed to help teachers and students understand the difference between primary and secondary sources. With this knowledge, you can create your own primary source material for future generations to uncover.

Begin by reading *What are Primary Sources?* and *Types of Primar/y Sources* in the *Historian's Sources* section of the Learning Page. Then, examine the photographs below. Answer these questions:

- When was the picture taken?
- Who is the photographer?
- Why do you think the photograph was taken?
- What does the photograph say about American life in this era?
- A photograph is only one example of a primary source document. What primary source documents do you have at home?

1

Touring Turn-of-the-Century America, 1880-1920

2

The Northern Great Plains, 1880-1920

3

Black-and-White Photographs from the FSA-OWI, 1935-1945

4

Selected Civil War Photographs, 1861-1865

For more ideas and activities that you can do with your students see Create Your Own Primary Source and *Using Primary Sources in the Classroom*, *Lesson Framework*, and *Historian's Sources*, all of which can be found in the Lesson Ideas section of the Learning Page.

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Pictures as Primary Sources

What are Primary Sources? | **Pictures as Primary Sources** | **Primary Source Tool Kit**

One easy way to create your own primary source is to take a photograph. Be as creative as you want—choose a theme or simply take a random shot. Check out Tips for Taking Pictures before getting started.

Portland Breakwater Lighthouse, South Portland, Maine. 1855

Built in America: Historic American Buildings Survey/Historic American Engineering Record

Some Ideas ...

1. Photograph a building that is architecturally interesting. You might want to create a scrapbook, computer slide show, or Web page tour of buildings in your community.

2. Have students create an autobiographical stamp or trading card using a self portrait.

3. Taking a field trip to the zoo is a great way to introduce photography and learn about animals at the same time. Zoo animals are wonderful candidates for pictures. Many will "perform" for the audience.

5. Have your students explore the "hidden" world around them by having them locate and photograph lines, shapes, and angles. You will be fascinated by the variety that can be found. This could be incorporated into a math lesson.

6. What makes a city vibrant? Main Street USA, especially in cities, is generally a hive of activity during the lunch hour. Students can photograph all sorts of interesting people, objects, and signs. Pick photos

Ross Drive Bridge, Washington, DC.

Built in America: Historic American Buildings Survey/Historic American Engineering Record

Washington, D.C.

from each student's portfolio to form an exhibit of City Life or Cityscapes.

7. Create a time capsule of photographs to document the current year. Hand the time capsule down to a class that will open it in five or ten years or donate it to the local historical society. You might want to involve senior citizens in this project.

Portrait of Marlon Brando, in A Streetcar Named Desire

Creative Americans: Portraits by Carl Van Vechten, 1932-1964

Hippopotamus in the zoo begging for peanuts

America from the Great Depression to World War II: Black-and-White Photographs from the FSA-OWI, 1935-1945

Time Capsules

Time capsules can range from decorated paper towel tubes to commercially made airtight containers. The mailer tube pictured above was purchased for $1.80 from the U.S. Postal Service. Here are some tips for creating a time capsule:

- Separate your photographs with waxed paper or archival quality envelopes
- Copy newspaper clippings and documents onto acid-free paper
- Use a dust free container that you can seal tightly
- Label everything
- Avoid Plastics

Time Capsule Web Sites

Class Time Capsule
http://www.eduplace.com/rdg/gen_act/growing/capsule.html

A Brief History of Time Capsules
http://queenstribune.com/anniversary/tb_an_capsules.html

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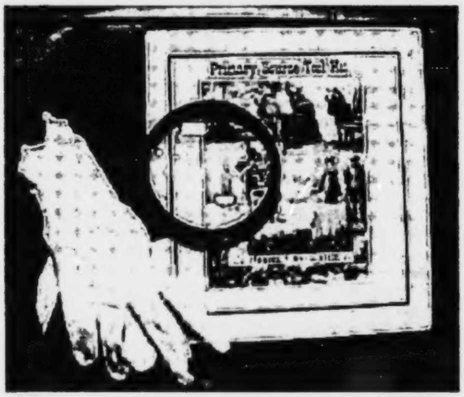
Primary Source Tool Kit

What are Primary Sources? · Pictures as Primary Sources · Primary Source Tool Kit

There are times when we simply have to "hold" a resource, touch it, and see it first hand. Since most students and teachers will not have an opportunity to visit the Library of Congress, it is necessary to bring this experience to your classroom. Primary Source Toolkits can do this!



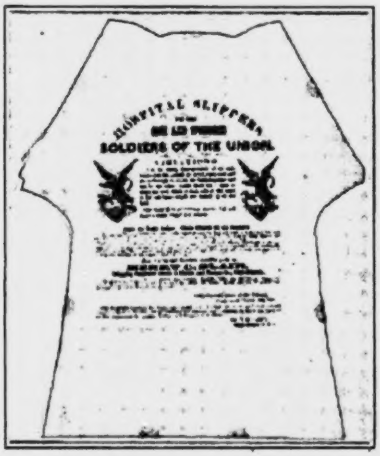
To construct a Primary Source Toolkit, high quality images can be printed out on card stock, at full size. If you are unable to create adequate prints at your school site, the images can be saved to a zip or floppy disk and taken to a duplication service (like Kinko's). The images can be stored in a "portfolio" file along with a magnifying glass and a set of white, cotton gloves. This toolkit can be shared by a pair of student "partners" or a small group. Below are some basic tips for viewing documents and other primary source materials.

White Gloves

Wash your hands before handling any artifact. Wearing white cotton gloves prevents the oils and salts on your hands from damaging artifacts. So, it is important that white gloves are part of your preservation tool kit. Listed below are some Library of Congress guidelines for handling different resources. You will note that in some cases white gloves are not worn.

Paper Materials: Hands should be clean and dry before handling paper items, as the oils from fingers can cause staining on the paper. Avoid having food or drinks in the area of your collection. Use pencils when working with your collection, to avoid possible disfigurement from inks.

Books: If a book will not lay flat, do not use force to open it further. The covers should always be supported when the book is open.



Hospital slippers for the sick and wounded soldiers of the Union

Photographic Materials: If photographs are handled improperly, they can suffer disastrous damage, including tears, cracks, losses, abrasions, fingerprints, and stains. Avoid touching fragile photographic materials; salts in human perspiration may damage surfaces. Wear clean cotton gloves if possible when handling negatives and prints.

Recorded Sound: Do not touch the playing surface/s of any recording. Handle recordings by their outer edges.

Film: Film should always be held by its edges to avoid leaving finger prints on picture and sound areas.

King & Carter Jazzing Orchestra

Millions of acres

Magnifying Glass

Viewing small print is made easier by using a magnifying glass. You can also observe more detail in photographs.

Pencil and Paper

You will want to make notes of your observations while examining primary source materials. Most libraries do not allow the use of pens so you want to be sure to have a pencil.

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Tips for Taking Pictures

What are Primary Sources? | Pictures as Primary Sources | Primary Source Tool Kit

Two photographers, preparing to take a picture

Touring Turn-of-the-Century America: Photographs from the Detroit Publishing Company, 1880-1920

Things to Remember!

Hold your camera level unless you are taking an artistic shot.

Be careful to keep your shadow out of the picture.

Make sure nothing in the background lines up unattractively with the subject, such as branches coming out of a person's head.

Be careful not to get too close to the subject.

Be sure your subject does not cast a shadow against a wall.

Keep the camera lens clean. Do not touch it with your fingers.

Make sure the sun is behind you. It should shine on the subject and not on the camera lens.

Make sure your finger does not accidentally get in front of the lens.

Avoid Making these Common Mistakes

Backgrounds that are too busy.

Posed pictures. Strive for a relaxed appearance.

Old Timothy Smith shed, Long Island

Architecture and Interior Design for 20th Century America, 1935-1955

Photographing something that is moving rapidly past you. Shoot action shots head on.

Shooting the first thing you see. Take your time and plan your shots.

Photographing Animals

Move close enough to the animal so that it is the focus of the picture rather than the background. At the zoo you may have to wait on the animal to move to a spot the will allow you to frame a good shot.

Let the animal get used to having you around.

Remain calm and quiet.

Stoop or sit so that the camera is almost level with the animal.

Be patient and wait for a good shot.

Portrait of Kaiser Marshall, et.al., New York, N.Y., ca. July 1947

William P. Gottlieb: Photographs from the Golden Age of Jazz

Harry Houdini performs the great milk can escape

The American Variety Stage: Vaudeville and Popular Entertainment, 1870-1920

Photo Web Sites

Kodak - Taking Great Pictures
http://www.kodak.com/US/en/nav/takingPics.shtml

Polaroid
http://www.polaroid.com/funfamily/index.html

Konica
http://www.konica.co.jp/english/e_menu.html

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The Erie Canal

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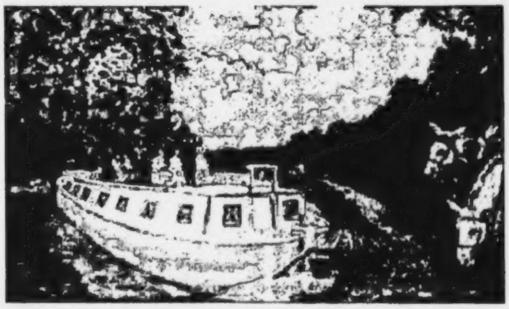
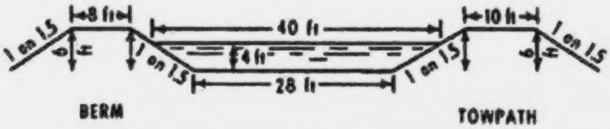
Images | Maps | Links | Books and Videos | Music



"Clinton's Big Ditch"

The Erie Canal is famous in song and story. Proposed in 1808 and completed in 1825, the canal links the waters of Lake Erie in the west to the Hudson River in the east.

In order to open the country west of the Appalachian Mountains to settlers and to offer a cheap and safe way to carry produce to a market, in 1808, Governor Dewitt Clinton proposed the construction of a canal. However, it was not until July 4, 1817 that Governor Clinton finally broke ground for the construction of the canal. In those early days, it was often sarcastically referred to as "Clinton's Big Ditch". When finally completed on October 26, 1825, it was the engineering marvel of its day. It included 18 aqueducts to carry the canal over ravines and rivers, and 83 locks, with a rise of 568 feet from the Hudson River to Lake Erie. It was 4 feet deep and 40 feet wide, and floated boats carrying 30 tons of freight. A ten foot wide towpath was built along the bank of the canal for horses, mules, and oxen led by a boy boat driver or "hoggee".



SECTION OF ORIGINAL ERIE CANAL

In order to keep pace with the growing demands of traffic, between 1836 and 1862, the Erie Canal was enlarged to a depth of 7 feet. It could handle boats carrying 240 tons. In 1903, the State again decided to enlarge the canal by the construction of what was termed the "Barge Canal", consisting of the Erie Canal and the three chief branches of the State system -- the Champlain, the Oswego, and the Cayuga and Seneca Canals. The resulting canal was completed in 1918, and is 12 to 14 feet deep, 120 to 200 feet wide, and 363 miles long, from Albany to Buffalo. 57 Locks were built to handle barges carrying up to 3,000 tons of cargo, with lifts of 6 to 40 feet. This is the Erie Canal which today is utilized largely by recreational boats rather than cargo-carrying barges.

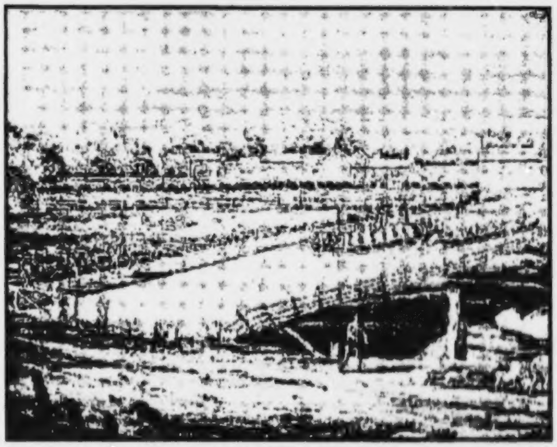
About this Site

This web site, although devoted to the Erie Canal in general, focuses on the central portion of the canal from Palmyra (Lock 29) to Lockport (Locks 34 and 35), and particularly on the area in the vicinity of the City of Rochester. The original canal went right through downtown Rochester and crossed the Genesee River on a major aqueduct. The first enlargement of the canal replaced the original aqueduct, which leaked, with a new, improved aqueduct which still exists in the guise of the Broad Street Bridge. The last enlargement of the canal bypassed Rochester, and now goes through the Genesee River south of the city. Other particularly interesting aspects of this section of the canal include the Lift Bridge in Fairport, which is an engineering curiosity due to the slope and angle of the bridge, and the locks at Lockport, where the current double 24 1/2 foot high locks are adjacent to one sequence of the original 5 lock pairs. These aspects are illustrated on the Erie Canal Images pages.

Erie Canal home page
New York State Canal System | Erie Canal Images | Erie Canal Maps | Locks on the Erie Canal

Department of History

History of the Erie Canal



View of Erie Canal by John William Hill, 1829. Watercolor on paper, 9 3/4 x 11 3/4 inches. - click on picture for a larger version (440 kb).

October 27, 1825, the *Seneca Chief* approaches the stone aqueduct in Rochester:

> *"Who comes there?"*
> "Your brothers from the West, on the waters of the Great Lakes."
> *"By what means have they been diverted so far from their natural course?"*
> "Through the channel of the Erie Canal."
> *"By whose authority and by whom was a work of such magnitude accomplished?"*
> "By the authority and the enterprise of the people of the State of New York."

| Visit the official WWW page of the New York State Canal System at: http://www.canals.state.ny.us/ |

The Erie Canal had an enormous impact on New York and America in the nineteenth century. University of Rochester students are writing the history of the Erie Canal and its successor, the New York State Barge Canal, to be placed on line here. Topics will include:

- Chronology of the Erie Canal
- Population of Rochester
- Bibliography, including many documents placed on line.
- Topographical map of canal west of Rochester - (215k)
- 1868 color map of New York canals and railroads - (255k)
- Evolution of boats used on Erie Canal, 1825-1899
- Evolution of canal cross section (prism), 1825-1899
- **Biographies**
    - David S. Bates, builder of the Genesee Aqueduct in Rochester and the Locks in Lockport.
    - Canvass White One of America's most capable civil engineers.
    - Another biography of Canvass White
    - Benjamin Wright, father of American civil engineering.
- Statistics (lots and lots of them!)
- Laws relating to the canal
- Competition - railroads, other canals, highways.
- **A New Way West**
    - The Geography of British America
    - Barriers to the Frontier (geographical, political, and military)
    - Canals in England and Massachusetts

- **The Struggle to Plan the New Canal**
  - Selecting a Route
  - Financing
  - The War of 1812
  - Political Triumph
- **Digging the Ditch**
  - The Engineers
  - The Laborers
  - And Everyone Else...
- **Opening the Canal**
  - "Wedding of the Waters"
  - A New World Beckons
- **The Canal Economy**
  - Passenger Traffic
  - Manufactured Goods
  - Raw Materials and Crops
  - Food
  - Packet Boats
  - Canal Industries
  - The Canal Expands
- **Competition**
  - Canals in Pennsylvania and Maryland
  - The National Roads
  - Railroads
  - Highways
- **Decline and Rebirth**
  - The Barge Canal System - too little, too late?
  - Recreation - the final purpose?

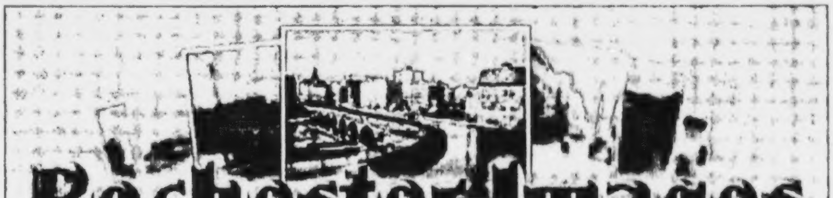
Other Canal Sites on the Internet

- CANAL JUNCTION - the comprehensive UK canal guide and canal business directory - canal maps, canal history, canal culture, canal engineering, canal museums, canal folk art, hotel boats, boatyards and marinas, canal boatbuilders and boat hire firms and much more.
- Genesee Valley Greenway
- Friends of the Trent-Severn Waterway

Others are welcome to submit information or pages about the Erie Canal to be put on line here. For information, please contact Morris Pierce.

In the meantime, browse through the New York State Archives' Canal Records.

Back to History Home Page



Rochester Images

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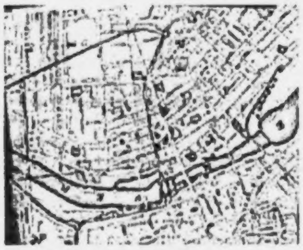
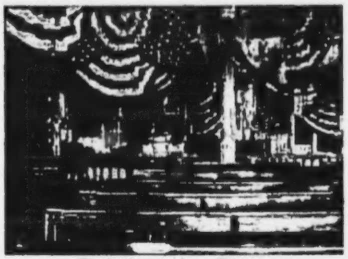


A tour around Rochester
on the Erie Canal
from 1850 to the present

Pathfinders

Search Images

Search Tips



Raising the Flag:
Patriotism in Rochester
1892 - 1922

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Rochester Images funded by the Library Services and Technology Act and the Institute of Museum & Library Services.

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Marco Paul's Travels on the Erie Canal

Response Journal Questions

Introduction to Classroom Reading

1. What was the author's purpose in writing this book?
2. Marco's father is a merchant. Explain what a merchant does for a living.
3. Marco is traveling with his cousin, Forester, who is about nineteen years old. Why do you think that Marco's father put Marco in Forester's care?

Chapter I: Planning

1. What are the two modes of acquiring knowledge that Forester talks about with Marco? Include an example of each.
2. Make a sketch showing one thing that Forester explained to Marco about the canal. Write a caption for the sketch.
3. Explain the difference between a packet boat and a line boat.
4. Why did Forester and Marco decide to take the train from Albany to Schenectady but then travel on the canal?

Chapter II: The Packet

1. What is a "maxim"?
2. Explain the meaning of the maxim: "what is worth doing at all, is worth doing well."
3. Write a maxim of your own.

Chapter III: Getting on Board

1. Sketch a scene in Schenectady. Include a caption.

Chapter IV: Night

1. Write a description about what it was like to spend the night on a packet boat.
2. Create a picture with words that makes the reader feel as if he or she were on the packet boat.

Chapter V: Canajoharie

1. Write a sequence of events explaining how a lock works.
2. Line boats usually carried goods on the canal. Why did some people travel on line boats instead of packet boats?
3. What is the purpose of feeders?

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Chapter VI: Honesty

1. What is the difference between deception and concealment? Use examples from the text in your explanation.
2. What does it mean when a person loses his character? How can this happen?

Chapter VII: The Pass of the Mohawk

1. Why does the person who guides the locomotive receive more pay than the fare collector?
2. Why did Forester say that Marco should not be in charge of guiding a locomotive? Use details from the story to support your statement.
3. Make a sketch of the Pass of the Mohawk, which shows the Erie Canal, the Mohawk River, the turnpike, and the railroad all coming together.

Chapter VIII: Perplexity

1. Describe two things that Marco found especially interesting in Little Falls.
2. What is "perplexity"?
3. Why was Forester perplexed?

Chapter IX: A Project

1. Write a paragraph demonstrating how Forester compares a regular canal to a short canal, which must circumvent falls and rapids.
2. Write a paragraph giving Forester's explanation of the differences between the Niagara River and other rivers.
3. Marco hopes to build his own canal when he returns to Vermont. What has he learned that should enable him to do this? How will he do it? Do you think that he will succeed? Why?
4. Marco wonders how a canal can be built without a great deal of confusion. Discuss the formation and workings of a company that builds canals.

Chapter X: The Steersman

1. What did Marco learn about the German woman even though he could not understand what she said?
2. If **you** worked on a line boat on the Erie Canal, what job would you want (driver, captain, steersman, cook, or bowsman)? Why?
3. Why do you think that the old man called Marco "Bob"?

Chapter XI: The Ride

1. Why didn't Forester reproach Marco for his foolishness concerning the horse?

Chapter XII: The Outlet

1. How did you feel about the way the book ended?
2. If **you** had written the final chapter, what would have happened and why?

Marco Paul's Travels on the Erie Canal

Evaluation

Printable Version (Requires: Adobe Acrobat Reader 5.0)

Name ____________________________________

Date ____________________________________

Session 1

Vocabulary: Choose the correct definition for the underlined word in each sentence. Circle A, B, or C.

1. Marco decided to take a stroll on the **promenade deck** instead of reading a book.
   A. the area where the captain pilots the boat
   B. an open area on a boat where people can walk or sit and enjoy the view as the boat is traveling
   C. where the berths are placed at night

2. Marco's Father was a **merchant** in New York City.
   A. someone who owns a store and sells a variety of merchandise
   B. a sailor on a ship
   C. someone who is asked to make maps

3. New York became "The Empire State" during the Erie Canal **era**.
   A. an important period of time in which significant events take place
   B. something that is published for people to read
   C. a special gathering of people for a celebration

4. Forester and Marco were able to choose which **berths** they wanted on the packet boat.
   A. seats on a canal boat
   B. sections on a canal boat for watching the scenery while traveling
   C. special beds for sleeping

5. Marco and Forester planned an **excursion** that would allow them to see some locks, aqueducts, and the "romantic" scenery on the canal.
   A. a long journey
   B. a short trip with a specific purpose
   C. an expedition that requires much planning an many supplies

Short answer response: Read each question below. In your answer be sure to incorporate the question and use examples/details from the story.

1. What is a **profile map**?

2. Forester told Marco that there were two "modes of acquiring knowledge," through reading **books** and through **observation**. Do you think that one of these modes is better than the other? Explain.

3. What is the difference between a **line boat** and a **packet boat**?

4. Marco and Forester began their journey in New York City. What different modes of transportation did they use in their travels?

5. When Forester and Marco arrived in Little Falls, Forester was greatly "perplexed" about the direction that the water flowed in the aqueduct. Tell about a time when YOU were perplexed about something.

Session 2

Multiple choice: Choose the best answer for each question. Circle A, B, C, or D.

1. "That what is worth doing at all, is worth doing well" is a **maxim** from the story. What is a maxim?
   A. a philosophy
   B. a saying
   C. something that someone believes
   D. all of the above

2. In the chapter "Honesty," Forester reminded Marco about the time when he didn't tell Marco that he was taking him to the dentist. Forester was using that incident as an example of which of the following?
   A. deception
   B. concealment

3. Forester told Marco that there were two kinds of trains. Some trains carried passengers and some carried **merchandise**. What is another name for the merchandise carried by trains?
   A. terminations
   B. cars
   C. freight
   D. locomotives

4. What kind of boats travel on "short" canals with no towpaths?
   A. packet boats with passengers
   B. line boats carrying cargo
   C. flat-bottomed river boats with a sail in the middle
   D. barges

5. Who are "stockholders?"
   A. people who dig canal
   B. people who own "shares" in a company
   C. people who collect toll

Short answer response question: Answer the following question remembering to incorporate the questions into your answer and use details from the story.

1. Do you agree with Forester that it would be a good idea for Marco to "build a canal" when they got to Vermont? Explain why you feel the way that you do.

2. Forester explained the following "jobs" involved in a canal company:
   - **stockholders**--people who invest their money in the company and see that it gets built; they also share in any "profits" from the canal
   - **directors**--peope who find contractors to dig the canal, make the locks, build aqueducts, etc....; they also pay the contractors when the work is done
   - **contractors**--men who hire many laborers, and own carts, horses, wheelbarrows, tools, etc....; they agree to build a certain section of the canal for a certain price
   - **superintendent**--the person who manages the canal and makes sure that tolls are collected; he pays the directors with the toll money

   I am planning to start a company that will build a new canal. I am looking for people to fill the positions described. **You** are interested in becoming part of my company. For which of the described "jobs" do you think I should hire you? Think about which job you would be able to do well. Explain which job you think I should hire you for and what makes you a well-qualified person for that job.

3. Jacob Abbott, the author, wrote this book to instruct (teach) the reader about the Erie Canal and "lessons in life." Write a **paragraph** telling what **you** learned from reading the book. **Remember:** This paragraph should have an interesting topic sentence, four to five detail sentences, and a well-written closing sentence.

Marco Paul's Travels on the Erie Canal

Graphic Organizer for Mind Travel

Printable Version (Requires: Adobe Acrobat Reader 5.0)

Look at the primary source documents in your packet. Identify the various types of activities taking place in the pictures. Under each category, list activities that were evident during the 1800s in New York State.

Entertainment	Transportation	Daily Life	Business/Industry

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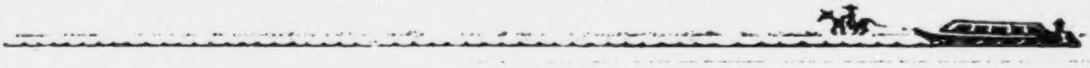
Marco Paul's Travels on the Erie Canal

Graphic Organizer for Chapter IV

Printable Version (Requires: Adobe Acrobat Reader 5.0)



Record Sensory Images from Chapter IV: Night

Sights	Sounds	Smells	Feelings

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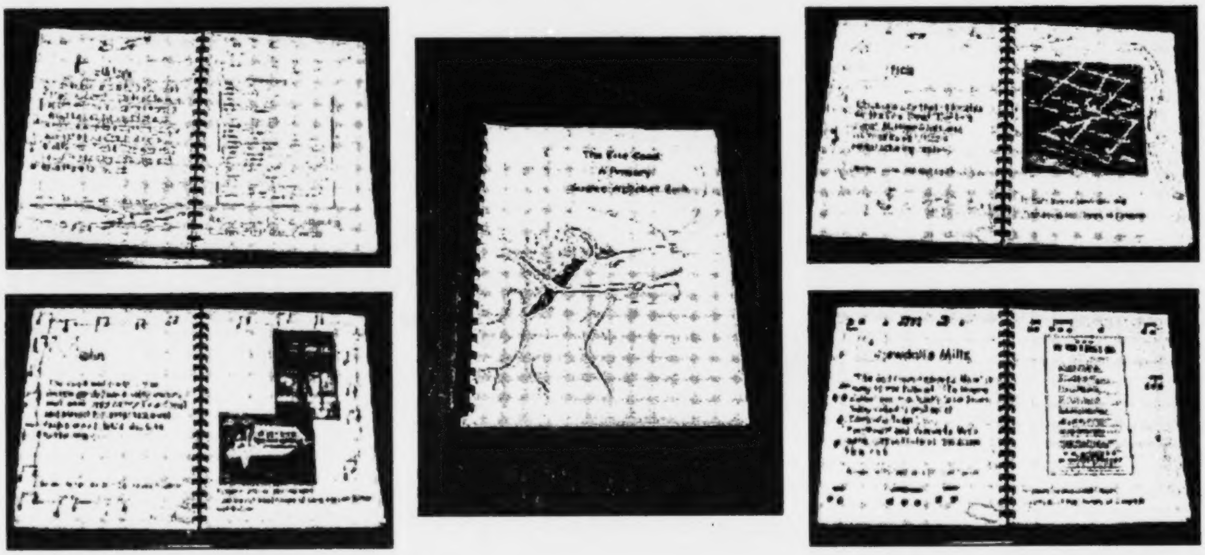
Marco Paul's Travels on the Erie Canal

Primary Source Alphabet Book

Sample Pages and Book Cover



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Questions? Contact us

Last updated 06/10/2002

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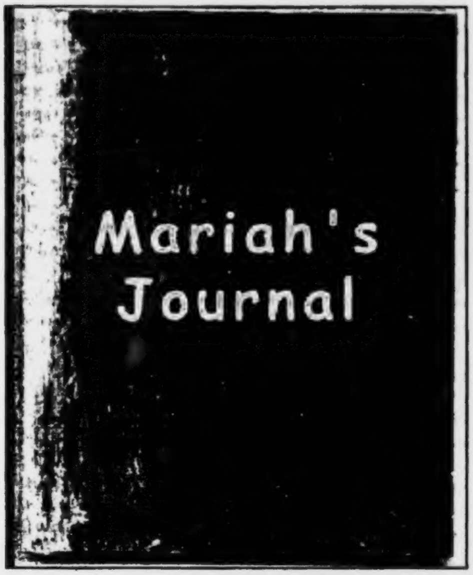
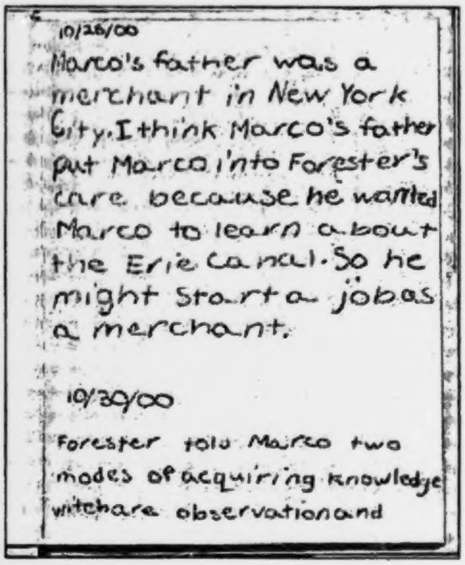
Marco Paul's Travels on the Erie Canal

Response Journal





10/26/00
Marco's father was a
merchant in New York
City. I think Marco's father
put Marco into Forester's
care because he wanted
Marco to learn about
the Erie Canal. So he
might start a job as
a merchant.

10/30/00
Forester told Marco two
modes of acquiring knowledge
witchare observation and

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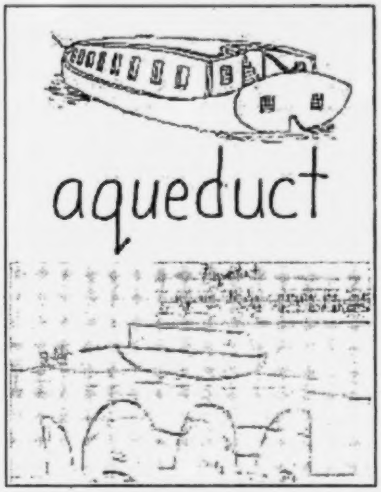
Marco Paul's Travels on the Erie Canal

"Terms of the Times" Word Wall



Example of Vocabulary Definition and Drawing

MARCO PAUL'S TRAVELS ON THE
ERIE CANAL

Classroom Word Wall

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Questions? Contact us

Last updated 06/10/2002

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Marco Paul's Travels on the Erie Canal

Teacher's Guide

Procedure

Preparation

1. Before reading *Marco Paul's Travels on the Erie Canal*, students should have studied the following background material:
   - geographic features of New York State;
   - DeWitt Clinton's dream of a canal;
   - building the Erie Canal; and
   - economic and social impact of the canal on New York and on the nation.
2. Students should also have a basic understanding of how to look at and read documents in order to analyze and interpret primary sources (from *What Are Primary Sources* workshop).

Lessons

Pre-Reading Activities - study primary sources from the 1840s to gain an understanding of the time period; create a word wall of important vocabulary terms.

Introduction to Classroom Reading - introduce the novel and response journal format.

Chapter I: Planning - follow the map along the Erie Canal and learn more about boats and aqueducts.

Chapter II: The Packet - introduce the concept of a maxim.

Chapter III: Getting on Board - learn about life in Schenectady, New York.

Chapter IV: Night - write about life on a packet boat.

Chapter V: Canajoharie - learn how a lock works.

Chapter VI: Honesty - discuss moral character.

Chapter VII: The Pass of the Mohawk - identify types of transportation used in the Mohawk Valley.

Chapter VIII: Perplexity - learn about issues facing Little Falls, New York.

Chapter IX: A Project - write on a variety of topics ranging from geography to economics.

Chapter X: The Steersman - understand the impressions people make on one another.

Chapter XI: The Ride - learn from mistakes.

Chapter XII: The Outlet - reach the end of the journey in Troy, New York.

Evaluation

1. **General Assessment**
    a. Participation in discussions
    b. Quality of journal entries
2. **Specific Assessment**
    a. Using their journals and the word wall as resources, each student writes a letter to the teacher from the point of view of Marco Paul. In the letter he or she explains what was learned about the canal and how it was learned.
    b. After completing the book, assess the students' understanding of vocabulary, events, and concepts using the unit evaluation.

Extension

1. After reading the book, students apply their knowledge of the Erie Canal and primary sources to create a Primary Source Alphabet Book about the canal.

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Marco Paul's Travels on the Erie Canal

Pre-Reading Activities

Activity One: "Mind Travel"

Preparation

1. Print out several copies of the Graphic Organizer for "Mind Travel" for student use.
2. Primary source materials for the "Mind Travel" activity are available on the pages linked below. To obtain larger images suitable for classroom distribution, click on each of the thumbnails. Print out copies of the four gallery pages and/or the pages containing the larger images.
   - Images from American Memory: Part One
   - Images from American Memory: Part Two
   - Images from the New York State Historical Association Library: Part One
   - Images from the New York State Historical Association Library: Part Two

Lesson

In the first pre-reading activity, students study primary source materials to increase their understanding of the time period, the 1840s, in which the story takes place.

1. Divide students into small groups.
2. Give each group a packet of primary source materials containing images from American Memory (Part One and Part Two) and images from the New York State Historical Association Library (Part One and Part Two). Students examine these primary sources to acquaint themselves with the entertainment, transportation, daily life, and business/industry of the 1800s.
3. Give each group a copy of the Graphic Organizer for "Mind Travel" for keeping track of their observations about the images.
4. Allow students time to study their sources, using the graphic organizer to guide them through the process.
5. As a class, students discuss what they learned from their sources about life in the 1800s.
6. Supplement the primary source materials with information that may not have been readily evident in the sources provided.

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Activity Two: "Terms of the Time" Word Wall

Preparation

1. View an example of a word wall created by students for their classroom.

Lesson

In the second activity, students become familiar with a number of vocabulary words in the book that are relevant to canal transportation and to the time period in which the book was written.

1. Before beginning to read the book, have students create a word wall with the following words from Chapter I and the prefatory material:
   - weigh lock
   - era
   - profile
   - merchant
   - settee
   - carpetbag
   - promenade-deck
   - terminations
   - ascended
   - emigrants
   - excursion
   - aqueduct
   - contrivance
   - engraving
   - berth
2. Lead the students in a brainstorming session to generate lists of possible meanings for the words.
3. Keep the lists visible while reading the book so that the class can discuss each word as it is encountered in context.
4. As each word is encountered, students draw pictures to illustrate the word.
5. The class may add other words to the word wall as appropriate.

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Marco Paul's Travels on the Erie Canal

Introduction to Classroom Reading

Preparation

1. View a student-created example of a Response Journal used during the classroom reading and study of *Marco Paul's Travels on the Erie Canal*.
2. Review a complete list of Response Journal Questions that the students will answer after reading and discussing each chapter in the book.
3. Arrange time for the students to create their own journals, possibly during art class.
4. Print out class copies of the following prefatory material from *Marco Paul's Travels on the Erie Canal*:
   - book cover
   - title page
   - verso page
   - preface
   - illustration

Lesson

Marco Paul's Travels on the Erie Canal was first published in 1847. The book's style of writing and its language are rich, but challenging to modern students. We recommend that the class read the book aloud and discuss the material in depth.

1. Introduce the book by examining the prefatory material. Students look at and discuss the book cover, title page, verso page, preface and illustration (map and profile of the Erie Canal) preceding Chapter I.
2. Review or introduce the terms "monograph" (book) and "primary source".
3. Explain to the students that they will study this monograph because:
   a. it is rich in historical information about the period in which it was written; and
   b. it is a primary source from the Erie Canal era.

4. While reading the book, each student creates a personal Response Journal. Students record their reflections before, during, and/or after each reading session. The journal entries reflect thoughts about the day's reading through focus questions and/or related prompts.
5. Students make their first entries in their journals at the end of this lesson by answering the questions below.

Response Journal Questions

1. What was the author's purpose in writing this book?
2. Marco's father is a merchant. Explain what a merchant does for a living.
3. Marco is traveling with his cousin, Forester, who is about nineteen years old. Why do you think that Marco's father put him into Forester's care?

Overview | Teacher's Guide

Marco Paul's Travels on the Erie Canal

Chapter I: Planning

Preparation

1. Print out class copies of the following:
    - Chapter I: Planning
    - Map of New York State
2. Primary source materials for Chapter I are available on the following pages. To obtain larger images suitable for classroom distribution, click on each of the thumbnails. Print out copies of the two gallery pages and/or the pages containing the larger images:
    - Primary Source Materials for Boats
    - Primary Source Materials for Aqueducts

Lesson

1. Read aloud in class Chapter I of *Marco Paul's Travels on the Erie Canal.*
2. Provide students with a map of New York. Have students trace the route and modes of transportation taken by Marco and Forester from New York City to Schenectady.
3. Design symbols to represent the different types of transportation.
4. Show students pictures of boats and aqueducts.
5. After classroom discussion, students answer the following questions in their journals.

Response Journal Questions

1. What are the two modes of acquiring knowledge that Forester talks about with Marco? Include an example of each.
2. Make a sketch showing one thing that Forester explained to Marco about the canal. Write a caption for your sketch.
3. Explain the difference between a packet boat and a line boat.
4. Why did Forester and Marco decide to take the train from Albany to Schenectady but then travel on the canal?

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Chapter I - Planning

THE STEAMBOAT.

On the evening when Forester left New York with Marco, on board the North America, then one of the most celebrated boats on the river, he was sitting upon a settee, by the side of one of the great doors leading into the ladies' cabin, thinking of future plans, when at length he said to himself, " How shall I begin to interest Marco Paul in the acquisition of knowledge?"

As for Marco, he was at this time rambling about the boat in search of amusement. Just before he left New York he had bought a book to take with him on his travels-in case he should wish to read on the way. Accordingly, as soon as he had come on board the steamboat he took this book out of his carpet-bag, and went up on the promenade-deck and began to read. His attention was, however, so much diverted by the objects of interest around him, that he made very little Progress in his reading. Presently he concluded that he would go down into the cabin, and see if they were setting the tables for supper.

He found, on entering the cabin, that the tables were set out, though every thing was not fully arranged upon them for supper. There were, however, a great many waiters busily engaged in bringing things in and arranging them upon the table. Marco stayed a little while in the cabin, expecting every moment to see the waiters bring in the supper itself. At last he asked one of them when supper would be ready. The waiter said in about half an hour. Marco concluded, therefore, not to remain in the cabin any longer, but to go up on deck and see what Forester was doing.

There were a great many passengers walking to and fro upon the deck of the steamboat. There were others seated on settees and chairs, reading newspapers, or looking at the scenery. Marco, as he came up from the cabin, walked slowly along toward Forester, with his book in his hand.

" Marco," said Forester, "come and sit down here, by me." So Marco came and took his seat by the side of Forester, on the settee.

"Marco," said Forester, "I have been considering what is best to have you study first, and I have pretty nearly decided."

" Well," said Marco, " what is it ?"

" See if you can guess."

" Arithmetic ?" , said Marco.

"No," replied Forester.- -

"Grammar ?" said Marco.

" No," replied Forester, " nothing like that."

"What is it then ?" said Marco. " I don't think I can guess."

"The Erie canal," said Forester.

"The Erie canal !" repeated Marco. " How am I going to study the Erie canal ?"

" There are two modes of acquiring knowledge," said Forester; " the study of books, and the study of things, or observation. You study books when you read in books an account of the object, or a narrative of the events, or a statement of the principles, which you wish to learn. When we learn by observation, we go out and see for ourselves instead of taking the statements or explanations of others."

" Which is the best ?" asked Marco.

"Both combined make the best method of study," said Forester; " first to learn from books all that we can, and then go and make our observations. I propose that you should study the Erie canal in that way. We can not learn from observation alone, because we want some guide. We want to know where to look, and what to look for. The Erie canal, for instance, is several hundred miles long. It would take a great while to explore it wholly from end to end. We want, therefore, to look at books first, so as to learn what the points of interest are, and then we can go out and make our observations to advantage."

" But it would be better, if we had time enough, to do it all by observation," said Marco.

" No," said Forester; " there are some things which we can not learn by observation. We can only get them from books."

" Such as what ?" said Marco.

" Why take such a point as this, for example," said Forester: " which end of the Erie canal is the highest? It begins at Lake Erie, and extends through the State of New York to Albany, where it comes into the Hudson river. As it comes along, it sometimes rises and sometimes falls, and,"

"I thought," interrupted Marco, "that the water in a canal was always level."

" Yes," said Forester; " at any particular place the water is level, or nearly level; but then, in making a canal, after going along a little way on a level, if the engineer comes to a place where the land descends, and the country takes a lower level, he stops there and builds a lock; that is, a place with great gates to shut in the water. Then he begins below, and makes another piece of the canal on the lower level; and they have a very curious way of letting the boats down from one level to another, and also of raising them up from the lower level to the higher, when they are going the other way; so, as you go along the canal in a boat, you have to stop continually, to be raised up or let down from one level to another. Now if we were to go through the whole canal, from Lake Erie to the Hudson river, and examine both terminations, could we tell, from our observations, which end was the highest ?"

"No, I suppose not," said Marco; " yes, we could, too; we could measure."

"Measure ?" repeated Forester. " How ?"

" Why we could measure all the ups and all the downs, and so see whether it goes up or down the most."

" True," said Forester, "we could do that. But that would take a great deal of time and labor. At any rate, we can learn the fact a great deal quicker from books, for there we shall find a drawing, with all the locks marked upon it, and the height of each one, so that we can tell at a glance that the end at Buffalo, on Lake Erie, is the highest, and we can see how much higher it is."

" How much higher is it ?" asked Marco.

" Five hundred and sixty-four feet," said Forester.

" How did you know ?" said Marco.

" I looked on my map," said Forester; " there is a profile of the canal on my map."

" What is a profile ?" asked Marco.

" It is such a drawing as I have been speaking of," said Forester. " I will show you."

So Forester took out from his pocket what looked at first like a little morocco book; but on opening it, it was found to contain only a map, which was printed on thin paper, and folded up neatly between the covers. Such maps are only prepared for travelers. Forester opened it and showed Marco the profile of the canal, which was drawn in one corner. It represented the whole length of the canal, with all the descents and ascents. Forester also showed Marco the course of the canal on the map; and by comparing the course on the map with the profile, they saw that the canal continually descended from one level to another, until it reached a long line called the Montezuma level. The cities of Syracuse and Rome were on this level. Then the canal ascended again to a higher level, where Utica and Little Falls were situated. After passing Utica, the canal descended again, by a great many locks, as it went along down the banks of the Mohawk river to the Hudson, and finally it reached a much lower level than that where it had commenced at Buffalo.~~

" Now," said Forester, " you see that we learn, by a glance at this profile, all that we want to know about the level of the canal; but it would require an immense labor for us to go over the whole length of it, from one end to the other, and make the measurements and calculations ourselves."

" Then," replied Marco, " if we can learn better from books, we need not make any observations at all; we may learn it all from books."

"No," said Forester, "for there are some things which we can not learn from books so well as we can by observation."

" What things ?" asked Marco.

" Why, one part of the business of the canal is to carry the emigrants out to the Western country. Now, when a canal boat, full of emigrants, is passing along the canal, and night comes, and they all gather into the cabin, it makes undoubtedly a peculiar scene, which it would be very difficult to get an idea of from description; but we should get a very vivid idea of it by going there and observing it for ourselves. So the views which are presented to the eye, as you go along, sitting upon the deck of the boat, the appearance of the villages, and all the little scenes and incidents, which occur along the line, which are characteristic of canaling, must be seen, or else we can not get a very clear idea of them."

" Can't they be described ?" asked Marco.

" It would be very difficult to describe them," said Forester. "Very few books do describe them; and, after all, no description can give you so accurate an idea as you can get by witnessing them. So you see that the way to acquire the best and most thorough knowledge of such a subject, is to study it first by books, and then by observation. Now how should you like to study the Erie canal in this way with me?"

" Pretty well," said Marco; " at any rate, I should like to go and see the emigrants."

" Going to see the canal will be more agreeable, than merely studying books about it, I have no doubt," said Forester; "but then, if we study the subject first in books, we shall take a great deal more pleasure in going to see it. We always take more interest in seeing what we have read and heard of, than in any thing equally curious, which is entirely new. For instance, now, do you recollect my telling you, when we were in New York, about the child that I saw, at the little farm-house in the woods, who helped her father carry his gun along the path ?"

" Yes," said Marco.

" Well,- now if we were riding along the road, you would take rather more interest in seeing that house, if I should point it out to you, than you would feel in other houses, that you had never heard of."

" Yes," said Marco, " I should."

"And so," continued Forester, "if we wish to enjoy visiting the canal, we must learn all we can about it beforehand, and that will give a great interest to our observations."

" Well," said Marco.

"Therefore," continued Forester, "I will tell you now all that I know about canals, and the Erie canal in particular; and then, when we get to Albany, we will endeavor to get some books, and learn more still, in respect to the subject. We will spend a day or two in Albany, studying the books, and thus find out what are the points of interest relating to the canal, so as to know what it will be most interesting to see. Then we will plan some excursion, and go and see for ourselves."

" Well," said Marco, " I should like that."

Just then there came suddenly into view, at the side of the steamboat, as she was gliding swiftly along up the river, a group of small vessels, side by side, with a steamboat in the middle of them. The vessels were fastened to the steamboat, and the steamboat was drawing them along up the river. Forester asked a gentleman who was near, if he knew what it was.

"It is a towboat," said the gentleman, " taking these vessels up to Albany." So the gentleman explained to Forester and Marco that merchandise for the country was carried up from New York to Albany, partly in sloops which sailed by wind, and partly in boats or vessels drawn along by a steamboat, called a tow-boat. A great many of the goods carried up in this way were to be landed at Albany, and thence transported to the West through the canal.

Marco and Forester had not time to look at the tow-boat long, for the North America glided very swiftly by it, and in a moment it was gone. Then Marco came back again and took a seat by Forester, for he had at first left his seat to look at the tow-boat.

" Well, Marco," said Forester, " now I will tell you what I know about the canal. This will be a beginning; then we will get some books in Albany, and learn all we can from them. By this means we shall learn enough about the canal to visit it to the best advantage.

"The first thing in the construction of a canal is to have the banks water-tight. They make the embankments of earth, but then they have to prepare the earth in some peculiar way, and ram it hard, so that the water can not get through. The next thing is to get a supply of water; for it is necessary to have streams of water running into the canal all the time, so as to keep it full.

" I should think," said Marco, " that if they make the canal tight, and fill it with water once, that would be enough."

" No," replied Forester, " they can not make it perfectly tight; some of the water will ooze out through the ground, and some will escape by evaporation. Besides that, there is a great deal of water used at the locks when a boat passes up and down. So that it is necessary to keep a constant supply pouring into the canal all the tinge, at different places. Those places, where the water comes into the canal, are called feeders. We shall want to see some of the feeders when we go to visit the canal."

"Yes," said Marco, "I should like to see a feeder very much."

" Another thing that is interesting to see upon the canal is an aqueduct. An aqueduct is a kind of bridge by which water is carried over a stream. In fact, an aqueduct is any artificial channel to carry water. If a small quantity of water is to be conveyed across a stream, it can be conveyed in pipes, which can be carried along the bottom. But a canal requires so much water that it can not be conveyed in this way. Therefore, aqueducts for supporting a canal must be very large and solid structures. They are made like a bridge, only; instead of a road upon the top, the canal is there, with a pathway by the side of it, for horses to walk upon that have to draw the boats."

"I should like to see an aqueduct," said Marco.

" So should I," said Forester.

" Did you never see one ?" asked Marco.

" No," said Forester. " There is a magnificent aqueduct on the Erie canal, at Rochester, I have heard; but that is rather too far for us to go and see."

" How far is it ?" asked Marco.

Forester, instead of answering Marco's question directly, opened the map again, and showed Marco where Rochester was. They found that a considerable river, called the Genesee river, ran across the route of the canal at this place, so that it was evident that the canal must pass over the river.

" Are there any other aqueducts on the Erie canal ?" said Marco.

" Yes," said Forester, " I presume there are several. We will follow the course of the canal on the map, and see what rivers it cross. es. I suppose there must be an aqueduct at every river."

They found, by examining the map carefully, that the canal crossed the Seneca river in one place, and the Mohawk river in two places, besides several smaller streams; and Forester said he supposed that there must be an aqueduct at every one of these places, to carry the canal over.

" There certainly must be," said Marco.

" No," said Forester, " not certainly."

"Why," said Marco, "I don't see how the canal can get over in any other way."

" Why, if the canal should happen to be on a level with the stream, where it was to cross, I don't know but that they might draw the boats over in the water of the stream itself, without any canal there; only they would have to make a bridge for the horses to go over upon. There can not be an aqueduct, unless the canal is considerably higher than the river at the place where it is to pass over. When the canal comes to a small stream, I believe they turn the stream directly into the canal for a feeder. We shall probably, if we sail along the canal, see such streams coming in, sometimes on one side and sometimes on the other."

" Yes," said Marco, " I'll watch for them."

"Beside feeders and aqueducts," continued

Forester,"we shall want to see some of the locks. There are some double locks and some single locks, I have been told."

" What are double locks ?" said Marco.

" Double locks," replied Forester, a are those which are made in pairs, one by the side of the other, so that some boats can be going up in one, while others are coming down in the other, at the same time."

" Why couldn't they wait ?" said Marco.

" Why, there are so many boats," said Forester, " as I have been told, that they accumulate before the locks, waiting for an opportunity to pass through. It takes some time for a boat to get through a lock."

" Why ?" asked Marco.

" You would see," replied Forester, " if I could explain to you the mode; but I had better wait until we can see the locks, and the boats passing through. Then you will see at once why it takes so much time."

" There is one place in the canal where there are a great many locks. It is a place called Lockport."

We'll go there and see them," said Marco.

" It is rather too far off," said Forester.

So Forester found Lockport on the map, and

showed it to Marco. It was beyond Rochester, in the western part of the canal.

" Besides," said Forester, " it is rather tedious going through a great many locks. After we have seen a boat go through two or three times, we understand the process, and after that, it is only a tedious repetition of the same thing I understand that travelers avoid those parts of the canal where there are a great many locks."

" How do they get along, then ?" said Marco.

" They travel in railroads or stages, if there are any. For instance the first part of the canal, from Albany to Schenectady, is full of locks. The canal there ascends very fast, in getting up into the valley of the Mohawk. We will look on the map and see."

So Forester showed Marco the map again, and pointed to the profile of the eastern end, where there were a great many locks represented.

"I have heard it said," continued Forester, " that it is very tedious to go by the canal from Albany to Schenectady, and that travelers generally go across by the railroad route, and so take the canal at Schenectady, or else they go on to Utica on the railroad. For here at Utica," continued Forester, pointing to the

map, " you see a long level commences on the canal; and they travel fast on that level, for there are no locks to delay them."

" I should rather go where there are locks," said Marco.

" Yes," said Forester, "I presume we should be very much interested at first in seeing the locks; but probably we should soon get tired of them."

" What else is there," asked Marco, " to see on the canal ?"

" I do not recollect any thing more now," said Forester; "only there must be some contrivance for getting rid of the waste water."

" What do you mean by waste water ?" asked Marco.

" Why, the superfluous water," said Forester.

"I don't understand superfluous any better than waste," said Marco.

Forester smiled, and said it was not a very good explanation. He said, however, that it was now time for them to go to their berths, and that he would not talk any more on this subject until morning.

Chapter II

The Learning Page... *lesson plans*

Marco Paul's Travels on the Erie Canal

Chapter II: The Packet

Preparation

Print out class copies of the following:

- Chapter II: The Packet
- Primary Source Materials for Maxims (both gallery page and pages with larger images, as needed)

Lesson

1. The focus for this chapter is the concept of a "maxim." Teachers are advised **not** to introduce the concept of the word "maxim" before reading Chapter II in class. The examples used in the text will provide the opening needed for a great classroom discussion!
2. Read aloud in class Chapter II of *Marco Paul's Travels on the Erie Canal.*
3. After classroom discussion based on the examples in the chapter, students study and discuss the Primary Source Materials for Maxims.
4. Students answer the following questions in their journals.

Response Journal Questions

1. What is a "maxim?"
2. Explain the meaning of the maxim: "what is worth doing at all, is worth doing well."
3. Write a maxim of your own.

Overview | Teacher's Guide

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Chapter II - The Packet

FORESTER and Marco Paul remained a day or two at Albany, making their investigations in respect to the canal; and they finally concluded that their first excursion in visiting it, should be to go to Schenectady, and there take a packetboat and sail to Little Falls, a village about fifty miles beyond Schenectady.

The reason why they went to Schenectady, instead of beginning their voyage upon the canal at Albany, will be made apparent by looking at a map of the State of New York, awl a profile of the canal. It will be seen that from Albany to Schenectady the canal ascends rapidly, by a great many locks, up the valley of the Mohawk; and it takes also a circuitous route. The ascent is to be seen by the profile, and the circuitous course by the map. Now the heavy goods which are transported along the canal must necessarily be taken round that way. The delay is not of much consequence to the merchandise; but passengers, who wish to get to the end of their journey as soon as possible, generally go across from Albany to Schenectady by a railroad, and then take the canal there. The consequence is, that there are no passenger boats going from Albany to Schenectady, but only boats for carrying merchandise. The boats for passengers are made very different from the boats for merchandise, and they are called by different names. The passengerboats are called packets, and the others are called line boats.

Now, though a great many emigrants travel in line boats, Forester knew very well that they would not be at all comfortable to those who had been accustomed to the conveniences and refinements of life; so he concluded to proceed directly to Schenectady by the railroad, and take the packetboat there.

And the reason why Forester and Marco concluded to stop at Little Falls, was, because they found, by the description of the canal in their books, that there was a remarkable feeder at Little Falls, a feeder in which the water was brought into the canal by an aqueduct built across the Mohawk river. This aqueduct may be seen represented on the large maps of New York. The books said also that the scenery at Little Falls was very romantic and grand, and that there were several locks there too. So that by visiting Little Falls, they found that they would have an opportunity to see locks, and a feeder, and an aqueduct, and romantic scenery besides.

There was another thing which they hoped to accomplish, too, on this excursion. They found, on inquiring at Albany, that a packetboatleft Schenectady every night, and another every morning. Now they wished very much to spend a night on board a boat on the canal; for they wished not merely to see the canal as a mechanical structure, but also to witness some of the various scenes of human life which were presented in connection with it. One of these scenes was a night in a packetboat; and they calculated that if they took a night boat at Schenectady, they should accomplish that object; and then afterward, in the morning, before they reached Little Falls, they would have time to sail along for some distance by daylight, and see the country and villages, and observe the incidents which occur along the balls of a canal.

"We will take very little baggage," said Forester, " so as to be independent."

" What do you mean by that ?" said Marco.

" Why, I will put all that we shall both want in my little carpetbag, and then we can go where we please, with our bag in our hands. A trunk is a great incumbrance on an excursion in search of the picturesque."

So Forester put some newspapers and a map into his carpetbag, and then began to roll up some articles of dress into a small roll, which he was going to put into the carpetbag too. Be held this roll in his hand a moment, hesitating, before he put it into the carpetbag. "It will get sadly tumbled," said he, "knocking about in the cars and in the boats; I wish I had some way of protecting it."

" A trunk would be the best for it," said Marco.

Forester did not answer. He seemed to be musing.

"Never mind if it does get tumbled," said Marco.

" If I could find a tinman," said Forester, " I could get him to make a case for me in five minutes. Come with me, Marco," he continued, " and I will show you what I will do."

So Forester went down to the office of the hotel, and asked the clerk if he could direct him to a tinman's. The clerk went to the door, and told him to go in a certain direction, and into a certain street, and he would find a hardware store; and he said there was a tinman's in the rear of the store.

Forester and Marco walked along to the store. The storekeeper directed them out through a back door which led down some steps into a little yard, where the tinman's shop was situated.

When they entered, they found the tinman at his bench, hammering some tin with a small mallet. A little at one side of the place where he was sitting, was an enormous pair of shears, fixed in an upright position on the workbench, all ready to cut. The jaws were short, but very heavy. They were what the tisman used in cutting his tin. Forester told the man that he wanted him to do a little job. " It must be a very little one, indeed," said the tinman, " for I am very busy. The other man that works with me is sick." " Well," said Forester, " I will make it a very little one. I want you to cut me out two pieces Of tin, about ten inches long and three wide, and then bend them up into half cylinders, so that when I put them together they will make a hollow tube. Then I should have liked to have some pieces soldered into the ends, but that is of no great consequence, if you can not do it conveniently." "I will cut the piece out for you," said the tinman, " but I have not time now to solder in the ends." So the man cut out the tins, and then, in order to bend them into a circular shape, he took a long, wooden roller, and rested one end on the bench and the other end upon the stool which he was sitting upon. Then he bent the tins over upon this roller, and hammered them with his mallet, so as to make them fit the roller in every part. Forester found that he was taking more pains than was requisite, since it was not necessary for his purpose that the tins should be very true in their form, and besides, he knew that the man was in haste; so he said, " That will do, sir; it is not necessary to be very particular about it." " Why, there is a maxim," said the tinman. "that what is worth doing at all, is worth doing well." "That is a very good maxim, I have no doubt," said Forester; " but the farmers in Vermont have another one, that it is not worth while to plane the under side of a barn floor." The tinman laughed. As I suppose the true philosophy is," said Forester, " to go in the right medium between these two maxims." By this time the tins were ready. Forester paid for them, and he and Marco returned to the hotel. Forester placed them one upon each side of the small parcel containing his linen, where they served as guards to protect the contents of the parcel from shocks and concussions. Marco, following Forester's guidance, found himself, not long after this, seated in a car, which was trundling him out of Albany. They came very soon to a long ascent, which led up to higher land than that on which Albany was situated. For the land which lies in a direct line between Albany and Schenectady 18 elevated, though it is nearly level when you once get up, away from the river. The land is sandy too; so that it would have been easy to have made the excavation for a canal in a straight line, but it would have been difficult to have got a supply of water to keep it full. Besides, it would have been necessary to have had a great many locks in order to ascend from Albany to the tableland above, and then as many more to descend again to the Mohawk, at Schenectady. On account of these difficulties they did not attempt to carry the canal across this plain, but took it round, through the valley of the Mohawk, from Schenectady, thus bringing it down to Albany from the north. All this will be made very clear by looking upon the map. The railroad, however, they made straight, and the consequence was, that it was necessary to have the cars drawn up a long ascent near Albany, in order to get them upon the high, level land above. Then at Schenectady there was another long descent, by which the cars were let down into the valley of the Mohawk. All this is, however, changed now, another route having been found for the railroad, which avoids these inclined planes. Beyond Schenectady the railroad follows the valley of the Mohawk along to Utica, with the canal. So that for ninety miles there is a canal, a railroad, a river, and a common highway, running side by side, in the same narrow valley. It was up this valley that Forester and Marco were going to travel in one of the packetboats of the canal, as soon as they reached Schenectady. The cars were drawn up the long, inclined plane, so long that it seemed to Marco almost half a mile from the bottom to the top, by an engine which was stationed at the summit. There was a long cable, which reached from the top to the bottom of the hill. To keep the cable from dragging on the ground, they had a line of wheels in the middle of the track, between the rails. The cable passed along over the tops of the wheels. There was a groove made in the circumference of the wheels, to keep the cable from slipping off upon one side. Such wheels are called pulleys. When the cars reached the top of the inclined plane, there was a locomotive engine, that is, an engine which moved along the road, ready to be attached to it; and the locomotive soon carried the train across the elevated plain, and brought it to the brink of the hill, which descended into the valley of the Mohawk, at Schenectady. Here there was another inclined plane, and the train was let down slowly, by a stationary engine and a long cable, just as it had been drawn up at Albany. The locomotive was left at the top of the hill. At the foot of the hill they fastened horses to each one of the cars of the train, and drew them separately into Schenectady. Inclined planes are a source of great inconvenience upon a railroad. They make a great many changes and delays necessary. Still, there are some places where they can not well be avoided, though in this case, as has already been said, a new and more level route has been found, by which the ascent and descent that Marco and Forester passed over are now saved. As Forester and Marco were sitting upon their seats in the car, just before they reached the inclined plane, the conductor came climbing along the side and looking in at the window to take their tickets. These cars were not made as cars are generally made now, with a door at each end, and an aisle up and down through the middle; but they were divided by partitions into three parts, and there was a door in each side. The conductor, however, did not come in at the door He only looked in at the window, and when he had got the tickets, he climbed along to the next car. " I should think he would fall off," said Marco. " He takes care, I suppose," said Forester; " but I wish I had asked him something about the packetboats at Schenectady." " Why, we can find out well enough when get there," said Marco. " Yes," said Forester, " but I expect there will be a great competition for passages. The runners will be after us, telling us all sorts of stories, and I should like to hear something about it beforehand." " The runners ?" repeated Marco. " Yes," said Forester; " the railroad people want travelers to go on the railroad, and the owners of the boats want them to go on the canal. So they each send out men to find the travelers as soon as they come into town, and try to persuade them to go by their conveyance. These men are called runners." " Do you suppose they will be after us ?" said Marco ?" " Yes," replied Forester, "very probably they will. The boats and cars both go at the same time, I believe, and both companies wish to get all the passengers." " It will do no good for the railroad men to attempt to persuade us," said Marco; " for we shall go in the packet at any rate." Forester was right in his expectation of being accosted by the runners on his arrival at Schenectady; for, as the car which they were seated in, was going into the depot, just before the horse had stopped, a man jumped upon the side of it, and looking in at the window, said, in an eager voice, to Forester, " Going west, sir ?" " Yes," said Forester. " Will you take the packet, sir, carry you to Utica for twelve shillings." At this instant another man applied at the window, just as Forester was taking up his carpetbag and umbrella. " Take the cars for Utica, sir?" said he. "Run through in six hours." " You can have a good night's rest aboard the packet," said the packet runner. "We will carry you for twelve shillings, sir," said the railroad runner, in a low tone, as Forester stepped out. "Thank you," said Forester, "but I have some business along on the canal, and I believe I must take the packet." " Well, sir, walk right along," said the packet man. " Have you any baggage ?" " Only this," said Forester. The man took Forester's bag and began to push his way through the crowd of persons that were coming and going in the depot, and Forester and Marco followed him without any more words. In fact, the noise and confusion of the bystanders, and the loud hissing of an engine, which was standing there, prevented conversation. Their guide passed out of the depot, and then turned into a busy street, built up closely on each side with stores, shops, and taverns. A short distance before them they saw a high bridge. It was where the canal passed under the street. There was a flight of steps at each side of the bridge, leading down to the banks of the canal. Forester and Marco followed the runner down one of those flight of stairs, and there they found a packetboat ready to receive its passengers. The canal was very broad at this place. A canal is usually made broad where it passes through a town. Along the sides of it were walls of stone, and these walls were continued up, under the bridge, high enough to form abutments for the bridge to rest upon. The packetboat was fastened by a rope to an iron hook in the lower part of the abutment of the bridge. The boat was long and narrow, with a row of windows on each side. There were Venetian blinds, painted red, before these windows, and the boat itself was painted white. This gave it a very gay appearance. Marco said that it was a much handsomer boat than he had expected to find. The top of the boat, which formed a sort of deck, was nearly flat, being only curved a little from the center toward each side, so that the rain might run off. There was a very small iron railing, not more than six inches high, along the edges of it. This deck was four or five feet above the water. At the bows, and also at the stern of the boat, there was a lower deck, with steps to go down to it; and from the lower deck in the stern, there were other steps leading into the cabin. There was a row of trunks and carpetbags commenced on the deck, beginning near the bows; and men were carrying on more trunks, which they placed regularly in continuation of this row. The runner stepped from the stone wall by the side of the canal, upon the top of the boat, and Forester and Marco followed him. The man put Forester's carpetbag down with the rest of the baggage, and then he took the umbrella from Forester's hand, saying, that he would put tha in the cabin.

Chapter III

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The Learning Page... lesson plans

Marco Paul's Travels on the Erie Canal

Chapter III: Getting on Board

Preparation

Print out class copies of the following:

- Chapter III: Getting on Board
- Primary Source Materials for Schenectady, New York (both gallery pages and pages with larger images, as needed)

Lesson

1. Read aloud in class Chapter III of *Marco Paul's Travels on the Erie Canal*.
2. In reading and discussing this chapter, students focus on the setting and life of the city of Schenectady.
3. After classroom discussion, students complete the following assignment in their journals.

Response Journal Questions

- Sketch a scene in Schenectady. Include a caption.

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Questions? Contact us

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Chapter III - Getting on Board

FORESTER and Marco followed the runner down into the cabin. They found that it was a long and narrow room, which occupied almost the whole of the interior of the boat. It looked like a pleasant little parlor, only its shape was very long and narrow. There were seats on the sides, under the windows, covered with red cushions. They extended the whole length of the cabin. There were one or two tables in the middle, with some books and maps upon them. The cabin was divided into two parts by a projection from each of the two sides, which projections, how ever, were so narrow that they left a very wide opening between them, almost as wide as the whole breadth of the cabin. There was a large crimson curtain hanging over this opening, so that when the curtain was let down, it would divide the cabin into two distinct parts. When Forester and Marco came in, however, the curtain was up; the two halves being drawn out to the two sides, and supported there by a large brass curtain knob. Over this curtain there were painted in gilded letters the words, LADIES SALOON.

Marco understood from this arrangement that that part of the cabin which was beyond the curtain, was intended particularly for the ladies, and that it could at any time be separated from the other part by dropping the curtain. In the middle of the ladies' cabin was a table, with books and a bouquet of flowers upon it. There were several ladies sitting upon the cushioned seats at the sides of the saloon.

On the table in the gentlemen's part of the cabin, was a writing-desk, with a large sheet of paper upon it. This was the way-bill, on which the names of the passengers were to be entered. The clerk, who was in the cabin when Forester and Marco came in, took a pencil up from the till of the desk, and said to Forester,

" What name, sir ?"

"Forester; and this lad's name is Baron," said Forester.

So the clerk wrote Mr. Forester upon the list. Forester observed that there were only two names there before. Under Mr. Forester, the clerk wrote the name Baron.

" What time do you go ?" said Forester.

" At nine o'clock," said the clerk.

Forester looked about the boat a few minutes more, and then went up on deck again, and stepped off the boat upon the bank.

" It will be an hour," said Forester, " before we shall go. So we will ramble about the town a little, and see what is to be seen."

They ascended the long flight of stairs again, which led up to the bridge. When they reached the top, Forester proposed that they should go across the bridge, and look at the canal on the other side.

They went accordingly to the other side, and looked down upon the broad and smooth surface of the water which was spread out below them. The view of the canal extended for 'some distance, until it was lost by the canal's curving around to the right, where the prospect was intercepted by buildings. On the left side was a sort of street, with the canal on one side and a row of small shops and warehouses on the other. There were a great many men and large boys standing idle in this street, and lounging around the posts which were set near the edge of the canal. There were stalls near, with nuts and oranges for sale; and children playing with each other, so near the brink of the water, that Forester thought they must be in danger of falling in. On the other side of the canal there was a path, called the towpath. It was for the horses to go in when drawing the boats along the canal.

While they stood thus upon the bridge, looking down upon the water, suddenly Marco perceived two horses coming into view along the curve of the tow-path, at a little distance below. They were harnessed one before the other, and were drawing a long rope. A moment afterward, the bow of a canal-boat, which the horses were towing, appeared, and then the whole length of the boat glided into view. It was not by any means so handsome a boat as the packet which they had taken passage in, and the deck was covered with long rows of barrels.

" 'There comes a load of flour, I suppose," said Forester, " from the west." " Is that flour ?" asked Marco.

"I presume so," said Forester. "I know that a very large part of the business of this canal is transporting flour from the west. In fact, that was one of the chief things it was made for. There is a large tract of land in the western part of this state, and all around Lake Erie, and the other lakes, which produces immense quantities of wheat, and it was thought that, if they made this canal, the flour might be brought down very easily." " Did the farmers make the canal ?"

"No," said Forester; " the State of New York made it."

" Why did they make it ?" said Marco; " it was not their flour that was to be brought down."

" No, but then the government knew that it would be of great advantage to all the farmers of the state to have the means of bringing their produce to market; and, besides, they knew they could manage it-so that the state should get paid again for making the canal." " How ?" said Marco.

" By making every one pay toll that comes through with a boat. This man, with his load of flour has had to stop somewhere and pay toll for every barrel. So, if a man owns a packetboat, he has to pay toll for every passenger."

" I should think the passengers ought to pay toll themselves," said Marco.

" They do, in fact, for the packet-man charges them enough to pay their toll, and also to pay him for carrying them in his boat. But it is more convenient to have the packet-master pay once for all, than it is for every man to stop and pay his own toll."

" Why, every man has to pay to the packetman," said Marco.

" Yes," said Forester; " but then he does it at the same time that he pays his own fare, settling for both in one payment, so that it is no additional trouble. So all the masters of the boats have to pay trolls, I suppose, for all the merchandise and all 1 the passengers they carry; and all these tolls acre collected together, and paid to the government of the state, and they make a very large sum every year. But it is not so with the railroad." " Why not ?" said Marco.

" Why, the railroad was built by a company of individuals, who put their money together, and they built or bought the cars and engine too. So that the same parties which own the railroad own the cars and engine; and they carry all the passengers and all the freight themselves. They do not allow any body else to run on their road. But the State of New York does not own the canal-boats. It only owns the canal itself, and it allows any body to run boats on the canal, if they will only pay the tolls. There is no danger in having ever so many boats go to and fro, because they can pass by one another very easily, but different trains of cars, owned by different parties, would be always coming into collision."

" I don't see how the boats can pass by each other," said Marco. " I should think that the horses and the ropes would get entangled."

"No," said Forester; "they have no difficulty; you will see how they manage it, when we go in our packet."

Long before this time, the line boat, which they had seen coming, had passed under the bridge, and gone on out of sight. So Forester and Marco turned away from the bridge, and began to walk about the street.

Presently they came to a hotel near the railroad depot, and as they were rather tired of walking, they went in and sat down. Marco began to read a newspaper. Forester saw a desk in one corner of the room where the stagebooks were kept, and he told Marco that he was going there to write a letter.

Forester always carried two or three sheets of white paper folded in his pocketbook, and also a pen. He had, besides, a little pocket inkstand and wafer-box, so that he could write his letters at any time and place, when he had a few minutes of leisure. He accordingly went to the desk and remained there nearly half an hour, writing, and then he folded up his paper and came back and told Marco it was time for them to go aboard of the packet.

When they came in sight of the bridge, they found a large number of men and boys standing upon it, looking over the railing, or sitting upon the upper steps of the stairs.

" What can be the matter there ?" said Forester. " I do not know," said Marco.

They went on to the place and looked down upon the canal. The packet was there, in the same position in which they had left it. There were, however, a great many more persons on and around it, and the row of trunks and carpet-bags had now extended almost the whole length of the boat, from stem to stern. Forester and Marco supposed that some difficulty or trouble must have occurred to draw so great a crowd, but on looking down upon the scene, from the bridge, they could not perceive any indications that any accident had happened, and besides, now they were near, they perceived that the crowd were calm and quiet, looking as if they were waiting for something yet to come, rather than interested in any thing which was then taking place.

" It can not be," said Forester, "that all these people have come just to see the packet sail ! I should have supposed they would have seen a packet sail often enough at Schenectady, by this time."

"I do not know," said Marco, shaking his head, " I do not know any thing about it."

They passed through the crowd and went down the steps, and then got upon the boat; though the space not occupied by trunks was so fully occupied by men, that it was difficult for them to move about. At length Forester found a good place to sit down. The seat was a trunk, and there was a roll of carpeting upon the other baggage near, which was very good to lean upon. Here Marco and Forester established themselves, and their attention was soon absorbed in the novelty and interest of the busy scene around them.

They had not been many minutes in this position, when they saw several musical instruments appear at the head of the flight of stairs, which descended from the bridge. There was a bugle, a trumpet, a clarinet, and drums.

"Ah!" said Forester, "here comes a band of music. This explains the mystery. The people have come to hear the music."

The musicians came down the stairs, and stepped over to the boat, and took their stations at the bows. A moment afterward, the band struck suddenly into a fine martial air, which made Marco jump up from his seat, so as to get a better position to see. He stood upon a box, gazing alternately upon the trumpeter and the drummer with great delight.

Forester might have been expected to have participated, at least in some degree, in this pleasure, for he liked martial music very much. To Marco's great surprise, however, he suddenly rose, and taking Marco by the hand, said, " Marco, come with me."

Forester passed rapidly along, wherever he could find an opening through the passengers who thronged the deck, and clambering over the baggage, jumped off the boat to the shore, and began to work his way as fast as he could, wherever he could find a passage through the crowd, toward the stairs, and then up to the bridge. Marco had no opportunity to ask him where he was going. As soon as he reached the street, he said,

" I have left my little inkstand at the tavern. I shall just have time to run and get it. Come along as fast as you can."

" Well," said Marco, " only if they go off before we get back, we shall lose our baggage."

" I do not think they will go off," said Forester. " It is five minutes of nine yet. Besides, I presume they will play a little while before they go. At any rate, I must have my inkstand."

They hastened to the. tavern. Marco remained at the door while Forester- went in. He found his little inkstand on the desk where he had left it. The cover was by the side of it. He seized his lost property, and hastened back to the door, screwing on the cover as he went. " Have you got it ?" said Marco.

" Yes," said Forester, " and now we will go back as fast as we can."

" And if they have gone you will lose your baggage."

" No," said Forester, " for we can go by the railroad, and so get to Utica before the packet, and wait there till it comes, and thus get our baggage. But I think we shall be in time."

Forester was mistaken. As they looked toward the bridge they saw the crowd running across, from the lower side, where they had been standing, to the upper side, which indicated very certainly that the packet was passing under the bridge. This was confirmed by the sound of the music, which they could now distinctly perceive was in motion, as the boat, bearing the band upon the deck, was gliding along upon the water.

Now it happened that just as Forester and Marco were running thus toward the bridge, they perceived another young man before them, having a paper of some sort in his hand, who appeared to be also making his way as fast as possible toward the boat. The people on the bridge, seeing at once that there were passengers left behind, began immediately to shout to the packet. " Ho !" said one. " Hold up !" said another. " Ho-aCH-e-y !" cried another.

If it had been daylight those on board the packet would probably at once have perceived the truth of the case, and the captain would have ordered the boy, who was driving the horses on the tow-path, to have stopped. But it was now nine o'clock. There was a moon rising, it is true, which furnished light enough to enable those who were on the bridge to see Forester and the others running, but they could not see them from the packet. And then the loud notes of the music in a great measure drowned the sound of the voices calling upon the packet to stop. The boy who was driving, looked around and slackened his pace, but he had been going very swiftly before, and the boat glided along rapidly with the momentum it had already acquired. Some of the musicians, hearing a hubbub, stopped playing; others went on. In fact, the boat and all connected with it, assumed an expression of the utmost uncertainty and indecision.

"We will run on and overtake them," said the young man with the paper in his hand. Forester supposed that he belonged to the boat, and he and Marco followed him.

They ran down the bank of the canal on the upper side of the bridge, where they had seen the stalls of nuts and oranges. The canal was here very wide, being expanded into a sort of basin, and as the tow-path was on the opposite bank, the packet was at a considerable distance front them. If they had crossed the bridge before they descended to the bank of the canal, it would have been better, as this would have brought them upon the tow-path, where they would have been nearer the packet; and it would have been easy for the helmsman to have steered up near to the bank, so that they might have jumped on. But they had no time to think of this, and thus it happened that they found themselves running along the bank on the wrong side of the canal.

The packet went slower and slower, and the music ceased. Forester and his party found that they were getting before it.

" We will run on here to the next bridge," said the young man, "and then we can get aboard."

Forester had thus far supposed that this young man was connected with the boat in some way, and was only endeavoring to stop it, in order that he and Marco might get on board. When he found, however, that he was putting himself to a great deal of trouble, he said,

" Oh, it's of no great consequence, sir; we don't care particularly about getting on board."

" But I want to get on board myself," said the young man.

"Do you belong to the boat ?" asked Forester.

" No," said the young man; " but I want to go on her. We will run along to this next bridge, and then we can jump down on the boat when she passes under."

"I don't know," said Forester; "I expect you are more used to jumping off from a bridge upon a canal-boat, than we are."

"Oh, you can do it," said the young man, " only you must be quick; she'll go under like a shot."

Forester had no idea of exposing either himself or Marco to any risk. Still they pressed on, half running half walking, for a short distance farther, when they reached at length a long wooden bridge, which here crossed the canal. It was old, and high above the water; and it shook fearfully as they went over it. They had, however, outstripped the packet, for when they got upon the middle of the bridge, they saw it quite behind them, but coming along slowly up the canal.

There was also another boat just then coming down the canal, and the horses of the two boats passed each other under the bridge, just as Forester and Marco were going over above; and when they got down upon the tow-path, on the other side, the two boats were just shooting under the bridge, one in one direction and the other in the other. Marco thought that they would certainly come into collision; and in fact the tow-lines seemed to him already all entangled together.

However, the boats did not interfere; the horses and the tow-lines cleared each other in a moment, and the packet came gliding along, not far from the bridge where Forester and Marco were standing. The young man jumped on board, and the people who were standing upon the lower deck at the stern, held out their hands to Forester, and said, " Jump ! jump !"

They spoke eagerly, for the boat was then receding again, and they knew that in a moment it would be too late. Forester saw this too; but he did not attempt to jump. He shook his head, and said,

" Not I. I have no idea of getting into the canal."

In fact, Forester felt very easy about his passage now, for he knew very well that after showing so much eagerness to get passengers, the man who had charge of the packet would not go off and leave him and Marco, when it was so easy to slacken their speed and let them get in. If a man arrives at a landing just too late for the steamboat, his case is generally hopeless; for a steamboat is so large and unwieldy, and it moves, when it is once put in motion, with so great a momentum, that it is seldom worth while to stop for a single passenger. The case is very different with a packet on the canal.

As Forester expected, the helmsman put his helm off to the farther side of the boat, and this caused the bows to turn in toward the shore. It came so near that Forester and Marco stepped on board without any difficulty. They made their way as well as they could, among the men who were still standing upon the deck, to their former position by the roll of carpeting, where they took their seats again. The boy whipped up his horses, the musicians commenced playing the Grand March in Abaellino, the boat began to glide swiftly along, washing the banks with the swell, which followed in her stern, C and behold, Marco and Forester fairly embarked on the canal.

Chapter IV

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Marco Paul's Travels on the Erie Canal

Chapter IV: Night

Preparation

Print out class copies of the following:

- Chapter IV: Night
- Graphic Organizer

Lesson

1. This chapter focuses on descriptive writing. Before reading Chapter IV, prepare students to listen for sights, sounds, smells, and feelings experienced on a packet boat at night. Provide students with a Graphic Organizer to record the sensory images found in the chapter.
2. Read aloud in class Chapter IV of *Marco Paul's Travels on the Erie Canal.*
3. After classroom discussion, students answer the following questions in their journals.

Response Journal Questions

1. Write a description about what it was like to spend the night on a packet boat.
2. Create a picture with words that makes the reader feel as if he or she were on the packet boat.

Overview | Teacher's Guide

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Chapter IV - Night

THE first sensations which Marco and Forester experienced were delightful. They passed almost immediately from the suburbs of the town, into a delightful country, and they found themselves gliding swiftly along among groves and beautiful green fields; the moonlight shedding a soft and gentle radiance over the whole scene. The tones of the music resounded loud and full in the still evening air, and echoed from the hills. The smooth tow path lay along the side of the canal, a few inches above the surface of the water. Beyond it was a fence, and the full moon which was just rising on the opposite side of the sky, cast a shadow of the men, standing on the deck, upon the fence, where they glided along noiselessly like a group of apparitions.

In a few moments, Marco saw before him two bright lights, which seemed to be in motion. They were approaching. He soon saw that they were lights in the bow of another boat, coming to meet them. Now he thought that he should have an opportunity to see how one boat could get by another.

The boat that was coming was a lineboat, that is, one made to carry merchandise. It was loaded with lumber. It was drawn by two horses. The lineboats are usually drawn by two horses, while the packets have three. As the horses were at some distance before the boats, they would necessarily meet upon the towpath considerably before the boats would meet upon the canal.

As the two sets of horses approached, the lineboat horses turned off the path a little, on the side of the path farthest from the canal, and then stopped a moment so as to allow the packethorses to go by them. The horses were stopped a moment, in order to let the towrope, which they were pulling, fall down upon the path, so that the packethorses could step over it easily. Then, when the boats approached each other, the helmsman on board the lineboat steered his boat out, away from the towpath, and the helmsman of the packet steered his in, toward the towpath. By this means the rope of the lineboat came exactly across in the way where the packet was to go, and it seemed as if it was going to cut across the packet's bows. But just before the bows of the packet came against the rope, the boy who was driving the lineboat horses, stopped a moment, and as the lineboat kept moving on after the horses had stopped, it caused the towrope to drop down into the water, and it sunk so low that the packetboat sailed directly over it, without difficulty. The boy began to drive his horses along as soon as the rope was fairly under the boat, and Marco could hear it rubbing along the bottom of the boat, and it came up into the air again as soon as it escaped at the stern. Then the boats were clear of each other, and each pursued its way.

Thus it was in all cases, when the packet met the lineboats. They would always check their horses, so as to let that part of the rope which was over the towpath fall down upon the ground, and that part which was over the canal, sink into the water. By this means, the packethorses could step over the part which would otherwise have been in their way, and the packet itself could sail over that part which would have been in its way.

In case the driver of the lineboat horses should not stop his horses quick enough, there might have been danger that his towrope would have gone above instead of going under the packetboat. This would have been very disastrous in its effects, for the rope would have been drawn along with great force over the deck of the packet, and perhaps pull the passengers and the baggage off the decks into the water. To prevent this, there was attached to the bows of the packet, at the top, a hooked knife, shaped like a sickle, with its edge turned toward the front. If now the towline of a boat coming the other way were to catch so high that it would slip up instead of down, this hook would catch it and cut it off. Forester explained this to Marco, and Marco thought it was a very ingenious contrivance. He could not help wishing that a rope would get caught so, in order that he might see it cut off. But no such case occurred. In fact, the lineboats are very careful to let the rope drop down soon enough. If they are not, their rope gets cut oil; and they have to tie it; and thus in a short time it gets full of knots.

Forester and Marco after this remained for some time upon the deck, watching the changes in the scenery, and listening to the music, until at length they found that the evening air began to feel cool and chilly, and they then concluded to go into the cabin.

The cabin was nearly full. A great many men were seated on the cushioned seats, which extended along the sides. Others were upon stools by the tables, and some were standing. The captain, who was a very young looking man, not much older than Forester, was just taking his place at the little portable desk which was upon one of the tables, to receive the money from his passengers. Those whose names had been already put down, paid first, and then the others came up one by one, and the captain entered their names as fast as he received their money. The passengers were all talking about the crowded state of the boat, and wondering what they were going to do in the night. They said that it would not be possible to prepare places enough for them all to sleep. Forester and Marco both thought, from the conversation, that it was unusual to have so large a number of passengers.

It took a great while to receive all the money. There was a little calculation to be made in each case, and the change to be given. For the passengers were not all going to Utica. Some were going to stop at Canajoharie, some at Little Falls, and some at other places along the canal, and the captain charged each passenger a fare in proportion to the distance which he was to go.

While the captain was transacting his business in the cabin with his passengers, Marco and Forester suddenly perceived that the boat began to be thrown, at once, into a state of violent agitation. It rose and fell, and thumped against one side and the other, and Marco could hear a strange rushing sound as of water dashing against it. Marco was startled. His first idea was, that the boat had burst her boiler, but this feeling was momentary; for he recollected in an instant that a canalboat had not any boiler.

" What's the matter now ?" said Marco, looking alarmed.

"I don't know," said Forester. So saying, he began to open the window to see.

" We are only going through a lock," said a gentleman who sat near him. " A lock !" said Marco, " let us go and see."

By this time, Forester had opened the window. The sash was made to slide along horizontally, that is, to one side, and not upward like the window of a house. Outside of the window were the red blinds which have already been described. Forester pushed open one of these, and it went against a wet stone wall.

The boat was moving restlessly about, and by watching a moment they perceived that it was rising higher and higher, as they could see very plainly by the seams and stones of the wall. At length they reached the top of the wall, and then Forester could open the blind wide. He perceived a sort of street, which extended back from the top of the wall, with some buildings on the opposite side of it. Marco was very much surprised at this process, though Forester knew before that in passing through a lock, from a lower to a higher level on a canal, the boat first went into the lock, which was a narrow enclosure, surrounded on all sides with high stone walls, and that then water was let in, which buoyed the boat up to the higher level; after which the gates were opened and the boat was ready to sail on.

He was not, therefore, surprised to find the boat rising, though, as he had never been through a lock before, he was much interested in watching the effects. A moment after the boat had risen to its proper level, it began to move on again, along the canal, just as before. Then Forester drew the blind back and shut the window, as the night air was very cool.

" I wonder what has become of our music," said Marco; " let us go and see." " You may go," said Forester.

So Marco went up to the deck; but the musicians were nowhere to be seen. Marco saw, however, at a short distance before him, a bridge leading across the canal. It was so low that it seemed to Marco that there was only just room for the boat to pass under. He thought that all the men and all the baggage would be swept off the deck by it. He accordingly hastened back to the stern, and got down upon the lower deck, where he could be safe. A moment afterward, just as the boat reached the bridge, the man at the helm called out, in a loud voice, " Bridge !"

Instantly all the men on the deck bowed their heads, and to Marco's great surprise they glided under it in safety, and the heads all came up together again, as soon as the boat emerged on the other side. Marco was very much surprised, for it seemed certain, when he first saw the bridge, that it was as low as the top of the boat. This was an optical illusion. Marco afterward observed a great number of other bridges, as the packet approached them, and they all appeared much lower than they really were.

Marco perceived that they were sailing up the valley of the Mohawk, as Forester had before said they would do, when they were talking about their intended excursion at Albany. He very often had a view of the river itself, from his place on the top of the boat. Still more frequently he could see the broad meadows which were upon each side of the river, and which were bounded in the distance by verdant hills.

Marco soon felt that it was cold, and so he went into the cabin again He sat down upon a stool, and began to listen to some conversation between Forester and one or two other gentlemen who were sitting there. He was soon interrupted, however, for the captain, after having finished receiving his payments, and putting away his money, rose and said,

" Now, gentlemen, if you will let us have the cabin, we will make up the berths."

" We shall have to take the towpath, then," said one of the men who were sitting there, " for there is no room for us on deck."

The passengers seemed rather reluctant to go on deck. However, a number of them soon rose and moved slowly out of the cabin. Some of them wentup on the upper deck; others crowded around the helmsman at the stern. Forester and Marco went to the stern, because they were a little afraid of the bridges. By standing at the stern, they were on the lower deck, and their heads were more evidently safe. There would have been little danger on the upper deck, however, for the helmsman always called out "Bridge," whenever the boat approached a bridge; so that even if a person should happen to be looking the other way, he would not come upon the danger without warning.

The helmsman found it somewhat difficult to see which way to steer, there were so many persons standing up before him on the deck. At length he said, in a gentle voice,

" The boat would go better, if the gentlemen would go farther forward. She would not draw so much swell after her."

Marco and Forester looked at the swell. It formed a great wave, which seemed to dash continually along the banks of the canal, just behind the boat. They understood that the helmsman meant that by crowding into the back part of the boat, the passengers caused that part to sink deep into the water, and thus to increase the swell.

" It makes her bows rise right up," said the helmsman, speaking to one of the hands belonging to the boat, who stood near him.

The passengers, however, paid no attention to these intimations of the steersman. Forester thought that it was better to have the boat draw a great swell than that he and Marco should get knocked off into the canal, by a bridge. What reasons influenced the others are uncertain, but none of them moved. .!

They all stood in this manner, almost in perfect silence, for about a quarter of an hour. Now and then, two or three who were standing near together, held a little conversation, in an undertone, and frequently Marco pointed out something to Forester's notice. At length the attention of the company was aroused by hearing a voice coming out from among the persons who were standing around the door of the cabin. It called out, " Mr. Forester." ' Here," said Forester.

"Come forward, Mr. Forester, and choose your berth," said the voice.

So Forester made his way, as well as he could, into the cabin, Marco following him. Forester pushed forward rapidly to the upper end of the cabin, and putting his hand upon a berth, said, " I choose this, sir."

While he was walking forward, Marco had time to observe the changes which had taken place in the cabin while he and Forester had been out. The curtain was drawn before the ladies' saloon, so that that part of the cabin was now cu off from view. Over the place where the seats had been, that is, along the sides of the cabin, were rows of berths, just wide enough for a man to lie in, and just far enough apart for a man to creep in between them. There were three in each tier; an upper, a middle, and a lower one. Forester chose the middle one, in the tier which was nearest the ladies' saloon. " Very well, sir," said the captain, " you had better get right into it, before any body else gets it." Then, looking at his paper again, the captain moved toward the door of the cabin and called out, in a loud voice, " Mr. Baron."

Marco and Forester both laughed, and Forester, putting his hand upon Marco's shoulder, said, " Here."

The captain smiled too when he found that the Mr. Baron, whose name he had announced so pompously, was only Marco.

" Very well," said he, " let him take the berth right over you. He is young and spry, and can climb."

" Shall I undress myself ?" said Marco to Forester, in a low tone.

"No," said Forester, "only take off your shoes and hat."

Marco had some difficulty in climbing up into his berth, and Forester had still more in getting into his. They found that the berth consisted of a piece of canvas stretched across a frame, with one sheet and one coverlid upon it. There was a little square pillow at the head, smaller and thinner than any thing that Marco had ever seen for a pillow before. In the mean time the captain went on, calling the other names in the order in which they stood upon his list; and as fast as the men were called they chose their berths and got into them

The passengers seemed very much disposed to be dissatisfied at the closeness of their quarters. The frames which supported the berths appeared to be very frail, and they creaked and settled as the occupants got into them, as if they were coming down. One man, who was in the middle berth, opposite to Forester's, across the cabin, began to punch the lodger who was above him with his knee; for the berths were so near together that a very slight flexure of any of the limbs of one in a lower berth, brought an elbow or a knee into contact with the under side of the bed above. " Lie still, down there," said the lodger above. " Then keep ofl of me," said the lodger below. This dialogue was followed with a loud peal of laughter from all around.

In the mean time, the cabin began to get very full, as more and more names were called and the persons answering to them came in from the deck. The voices became loud, and jocose remarks and laughter broke forth in every direction; and thus before long the cabin became full of confusion, frolic, and fun.

Marco lay still, enjoying the scene very much. He listened to hear the various sounds which came to his ear from every part of the cabin. Every now and then, the loud voice of the captain, calling out, MR. GREEN, or MR. WILLIAMS, or some other passenger's name, rose above the general din. A great deal of the noise was confused and indistinct; but Marco could get catches of the conversation, which, as it came to his ear from various parts of the cabin, sounded somewhat as follows:

" I wish I had a string to tie round my hat and hang it up; for there is no place to put it down anywhere." — " Captain, what are you going to do with the rest of us that have not got any berths ?"—" Oh, what a pillow ! 'tisn't bigger than my hand." — " Do you kick, sir, in your sleep ?"—" Kick ! yes, sir." — " For if you do, I don't want you over my head."— " Captain, where shall I put my boots ?"—" Mr. BELDEN !" " Here." " Choose your berth, sir; —they're all taken but that one." — "Gentlemen, don't make such a noise, —I want to go to sleep." — " My pillow is so thin, captain, that it makes my head lower than my heels."

These and similar sounds grew louder and more confused, the more Marco listened to them. He was at first much amused; but he was tired and sleepy. He shut his eyes, and once or twice almost lost himself in slumber. At length he heard a peculiar thump and a dash of water about the boat. He aroused himself and looked up. The noise which he heard was evidently without. It was the noise made by the boat passing through a lock. As soon as Marco understood this, he was surprised to find that the cabin, within, was entirely still. He put his head out over the edge of his berth and looked down. The floor was entirely covered with sleepers. They were lying across the cabin, with their heads upon She cushions, which had been taken off the seats. Their heads were close to the line of berths on one side, and their feet to those on the other. The width of the boat was just enough to let them lie so. They were close together, and the range extended through the whole length of the cabin. They all appeared to be sleeping quietly. Marco listened, and when the agitation of the boat, occasioned by its passing the lock, ceased, he could hear no sound except the occasional tread of footsteps upon the deck above him.

" It must be midnight," said Marco to himself, " and I have been asleep all this time."

The next thing Marco was conscious of was hearing a voice on the other side of the cabin, saying, " Come, Charles, get up."

He opened his eyes, and he saw a man standing before a berth, trying to awake the person who was occupying it.

" What do you want ?" said the man whom he called Charles, in a sleepy voice. " Come, the captain says we must get up." " What for ?" said Charles. " Because, it's morning."

Here Marco turned and looked out of the window which was opposite to his berth. It was indeed morning. The sun was gilding the tops of the trees. Just then he saw Forester get out of his berth, and so Marco came down from his too.

When Forester and Marco had put on their shoes and hats, they went out of the cabin. They found the men who had preceded them in getting up, washing themselves from a basin which was placed upon a little bench, near the place where the steersman stood. There was a lookingglass too, hanging in a place where there was just room enough for one person to stand. There was a comb and a hairbrush by the side of the glass. There was a door which opened into a little kitchen in that part of the boat, where a black cook seemed to be getting some breakfast. Marco looked at all these things with great interest; and even Forester regarded them with some curiosity, but he did not seem to feel much personal interest in these means and facilities for supplying his usual morning wants. Marco, too, as soon as he had once seen these novelties, began to look rather sober. It was cold and chilly outside, and every thing within the cabin looked cheerless and uncomfortable; for the room was full of berths and beds, and of persons getting up from them. In a word, both Marco and Forester began to think that they had quite enough of traveling on the canal.

At length Forester said to Marco, in a low tone, as they stood together looking upon the Mohawk river, which at this place was in full view before them,

" I've been thinking, Marco, that we had better go ashore at Canajoharie, and take the railroad for the rest of the way." "Well," said Marco.

"It is twenty or thirty miles yet to Little Falls, and it will take us five or six hours to go there in the packet. But in about an hour we shall get to Canajoharie, and then we can get out and ramble around till the cars come along. Then we can go quick and pleasantly to Little Falls."

" Well," said Marco; " but how do you know that the cars go through Canajoharie ?"

" Why, I know that the railroad runs up the valley of the Mohawk, and so it can not be far from the canal and river. I think it will be pleasanter to go that way. And, besides, we can then get a good comfortable breakfast at a hotel."

So this plan was agreed upon, and Marco and Forester jumped off the boat at Canajoharie. >

Chapter V

Marco Paul's Travels on the Erie Canal

Chapter V: Canajoharie

Preparation

Print out class copies of the following:

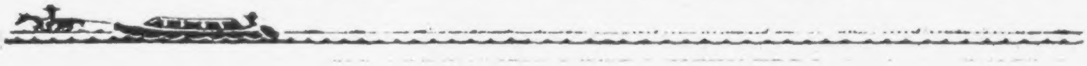
- Chapter V: Canajoharie
- Locks on the Erie Canal

Lesson

1. Read aloud in class Chapter V of *Marco Paul's Travels on the Erie Canal.*
2. In this chapter, Marco has the opportunity to learn how a lock works on the canal. Have students read the detailed description, Locks on the Erie Canal, to gain a better understanding of this mechanism.
3. After classroom discussion, students answer the following questions in their journals.

Response Journal Questions

1. Write a sequence of events explaining how a lock works.
2. Line boats usually carried goods on the canal. Why did some people travel on line boats instead of packet boats?
3. What is the purpose of feeders?



Overview | Teacher's Guide

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CHAPTER V - Canajoharie

JUST before the boat reached Canajoharie, it had to pass through a lock. Forester saw this lock represented on the profile of the canal, which was drawn on a corner of his map. It was plain from the profile that the lock was only a short distance from the village, and so Forester proposed to Marco that they should get out at the lock, and walk the rest of the way along the bank of the canal.

" Well," said Marco, He I should like that."

" By this means," said Forester, " we shall see the place a little better; and, besides, we can warm ourselves by the exercise of walking."

So Forester got his carpetbag and umbrella, and placed them near the stern of the boat, and he and Marco, taking their stand there, watched the progress of the boat as it glided along toward the lock. " And now," said Forester, " we shall have an opportunity to see exactly how they manage the business of passing through a lock."

They saw that as the canal approached the lock, it suddenly narrowed and entered between two high walls of stone, so near each other that there was just room for the boat to go in. This was the lock, and at the farthest end of it were two great wooden gates, which closed the passageway, and Marco did not see how they were to get through.

Beyond these gates Marco could see the canal again, but there the water stood at a much higher level than it did on that part of the canal over which the packet had been sailing. The water seemed to press heavily against the gates, and some of it spouted through the crevices. The horses trotted along the bank till they came to the lock, and the steersman steered the boat, so as to carry it exactly in. It seemed as if it was going with all its force against the gates at the head of the lock. In fact, Marco thought it must necessarily do so, for he did not see any possible way to stop it. If it had been a steamboat it might have been stopped by reversing the wheels, but there were no wheels to be reversed in the case of the packet.

At this instant, Marco observed a man standing near the bows, at the place where the towrope was fastened to a sort of iron staple, which was of a very curious construction. He had noticed this staple before, and wondered why it was contrived so curiously. He did not see why the rope was not fastened to a simple ring. Now, however, he saw the reason; for the man just touched a spring with his foot, and immediately the rope was loosed from its attachment, and fell off into the water; and as the horses were still going on, they soon drew the rope out upon the bank, leaving the boat entirely free.

As soon as the man had liberated this rope in this manner, Marco saw that he hastily caught up another large, rope, which was lying coiled up upon the bows. One end of this rope was fastened to a staple, in the bow of the boat. The staple, which the end of the towrope was fastened to, was at a little distance from the bows, near the side of the boat. The man took the end of the bowline and clambered up with it upon the high stone wall, which formed the side of the lock; for by this time the packet was gliding along smoothly into the lock. He ran forward with his rope, and wound it twice round a strong post which was set in the masonry in a proper place for this purpose, and so he easily checked the boat, just before it would have come into collision with the gates. Then, by means of this rope, he held the boat in its place, so near the gates that the water which spouted through the crevices, threw its spray over and upon the little low deck which was formed at the bows.

As soon as the boat was secured in this position, a man who was standing upon the bank went to the stern of the boat, and began to shut two great gates which were at that end of the lock. Marco had not observed these gates before. They had been laid wide open, in order to let the packet go in; and the walls had been built so that the gates, when opened wide, fitted so exactly into recesses in the masonry made to receive them, that Marco did not notice them at all. But now they attracted his attention very particularly, as the man was slowly swinging them to, by means of a long timber, which projected over upon the land side, and which operated as a lever. When these gates were shut, Marco perceived that the packet was closely shut in at the bottom of a sort of deep box, just big enough to hold it, and with walls of solid masonry all around it. The deck of the packet was considerably below the top of the lock.

Forester and Marco climbed up from the deck to the top of the wall, and then walked off upon the bank. There was a man just going toward the upper gates. He moved a long iron lever, which was attached to an axis that passed down through the stone work, and this seemed to open suddenly a passage for the water, down near the bottom of the gates. For Marco observed that there was immediately a great foaming and boiling under the bows of the canalboat, as if the water was rushing furiously in from under the gates. The man moved another iron lever, and afterward two more, and then Marco could hear and see the water pour in with great force under the bows of the boat.

Now, as these lower gates were shut, the water which was thus admitted through the upper gates, from that part of the canal which was on a higher level, could not escape into that part which was lower, but remained in the lock; and thus the water in the lock was rapidly rising, buoying the boat up with it. The water rushed in, too, with so much force through the opening in the upper gates, that it dashed tumultuously along the sides of the boat, and caused it to oscillate to one side and the other, and to knock against the sides of the lock. This was the agitation which Forester and Marco had perceived at the time when they were passing through the first lock, when they were in the cabin.

After a short time the boat was raised quite high in the lock, and Forester and Marco found that the water was getting to be nearly as high in the lock as it was in the higher part of the canal above. When, at length, it was exactly at the same level, the man swung open the great gates, at the upper end, and then the towline was fastened to the boat again, and the packet was drawn along. A great many of the passengers got off when Forester and Marco did, and stood upon the bank, watching the operation. They now jumped on again, though the boat was now elevated so much above its former level, that they had to jump up pretty high. They were soon all in their places, and the boat glided away again on its voyage.

" Now," said Marco, " how are they going to get all that water out of the lock, so as to let the next boat in ?"

" Let us wait a moment," said Forester, "and perhaps we shall see."

It happened that just as Forester said this, he observed a lineboat coming down the canal. It was very near, being just at that moment about passing the packet, which was going away from the lock. The upper gates of the lock were of course open, the packet having just sailed out of them, so that the way was open for the line boat to sail in. The steersman steered the boat in, arid a man from the bows of the boat cast off the towline by pressing the spring with his foot, just as had been done in the case of the packet. He then jumped off the boat and secured the bows by a strong rope, which he wound once or twice around a post that was near the lower gates.

The lineboat was now in the lock, just as the packet had been, only it was in a reversed position, the lineboat having her bows turned toward the lower gates, as she was going down the canal. As soon as she was secured in this position, a man on the banks shut the great gates, at the upper end of the lock. As the water was on the same level on each side of these gates, the gates moved easily through it into the position necessary for closing the passage. The man then went to the lower gates, and by means of some long iron levers, which were fixed there, similar to those which Marco had observed before, in connection with the upper gates, he opened a passage for the water through the bottom of the lower gates. This let the water off from the lock into the lower canal.

Of course, the surface of the water in the lock rapidly subsided, and the boat settled with it. Marco saw plainly that they were going by this means to let the lineboat down to the level of the canal below.

" There," said Forester, " you see how it is done. When the water is entirely down, they will open the lower gates, and let the horses draw the boat out."

It was as Forester had said. The water subsided rapidly, and the boat settled down with it until it was on a level with the lower part of the canal. The upper gates were shut all the time, so that no water could come in from above, except a little which spouted through the crevices in the gates. Then the man opened the lower gates, and then the way was clear for the lineboat to be drawn along on its way.

The lineboat was somewhat different in its structure from the packetboat. It had one or two windows near the bows, and one or two near the stern, but there were no windows along the sides. The reason was, that there was not a cabin for passengers extending through the whole length of the boat, as in the packet. For the lineboat was designed to carry merchandise, not passengers. Therefore, instead of a cabin in the center of the boat, there was a sort of hold to contain merchandise, such as boards, or staves, or barrels of flour; and such things, of course, needed no windows. There were no trunks upon the deck of the lineboat, but instead of them, there were three or four rows of barrels, which Forester said he had no doubt were filled with flour, going to New York. There was a woman and a little girl sitting upon stools upon the little low deck near the bows. The woman was knitting. Forester said he supposed they were passengers.

" Then they have some passengers on board the lineboats," said Marco.

" Yes," said Forester; " a few. It is cheaper traveling in the lineboats; and so some passengers go in them."

When the lineboat sailed away, Forester and Marco walked along the canal toward the village of Canajoharie, which they saw at a little distance before them.

" Now you see," said Forester, " one reason why they need feeders for the canal. Every time that a boat goes up or down, they have to lose a lock full of water."

" No," said Marco, " they do not lose it, they only let it go from one part of the canal to another." " Still they must lose it, for there must be some place for it to run off, out of the lower part of the canal; and they must also get a supply somewhere to take its place in the upper part." " Why must they let it run off?" said Marco.

" If they did not," said Forester, " after a while the lower part of the canal would get full and run over, and when the water overflowed, it would wash away the banks, and make a breach." " Yes," said Marco, " so it would."

" So they have places made in the banks of the canal, a little lower than the towpath, with an edge formed of stone or of timber, so that the water can not wear it away; and they let the waste water run over these." " I should like to see one," said Marco. " I saw one this morning," said Forester. " Where was I ?" asked Marco. " You were in the cabin," said Forester.

" Why did not you call me to come up and see it ?" said Marco.

" Because, we had got nearly by it before I saw it," replied Forester; " and I knew that if I went to call you we should have passed it entirely before you could get up on the deck."

" What sort of a place was it ?" asked Marco.

" Why, it was a place," replied Forester, "where the bank of the canal was made of timbers instead of earth, and it was a little lower than the rest of the bank, so that the water ran over it all the time, and fell down upon a wooden platform below, and then it ran off into a brook. I believe such a place is called a waste weir."

Marco said that he wished he could see a waste weir very much, and Forester said perhaps they might come to one on their way to Canajoharie.

" At any rate," said Forester, " we will notice the canal wherever we see it until we find one. I presume there are a great many along the canal at different distances; for it is very important to keep the water at about the same level. So they have feeders to keep the water from getting too low, and waste weirs to prevent its rising too high."

After this, Forester and Marco walked along a few minutes in silence, and at length Marco said,

" What are we going to do, cousin Forester, when we get to Canajoharie ?"

" The first thing," said Forester, " is to find a tavern, and get some breakfast." " And what next ?"

" The next thing is to find the railroad station, and to inquire what time the cars come along."

" How do you know that any cars are coming along ?"

" Because," said Forester, " I know that the train leaves Schenectady every morning at nine o'clock, and that it goes through in six hours; and I see by my memorandum that Canajoharie is about half way from Schenectady to Utica; so I presume that a train will come along here, about twelve o'clock."

"And how do you know that the railroad passes anywhere near here ?"

"Because," said Forester, "I know that it comes up the valley of the Mohawk. The railroad goes up on one side of the river, and the canal on the other."

" Then how are we going to get across the river ?" asked Marco.

" There must be some way to get across," said Forester. " Perhaps there is a bridge."

There was a bridge. It soon came into view. It was covered with a roof, and the sides were boarded up. It looked rather old. There was a village on the canal side, where they then were, and another village on the other side. They could see both villages as they walked along between the canal and the river.

"Which village shall we go to?" said Forester.

"1 do not know," said Marco.

" The one on this side looks the largest, but the one on the other side will be nearer the railroad," said Forester.

"Then let us go to the other side," said Marco. " Besides, I should like to see the bridge."

Forester concluded to adopt this plan, and they turned off toward the bridge, when they got opposite to it. When they got in, under the roof, they saw before them at the opposite end, that the passage was closed by a great gate. When they reached the gate, a young woman came out from a door in a building attached to the bridge.

" I rather think there is a toll to pay ?" said Marco.

" A toll !" repeated Forester. " This does not look much like a tollbridge."

All this time the girl stood still before them, looking at them with an expression of curiosity and interest in her countenance.

"Is there a toll to pay ?" said Forester.

"Yes, sir; two cents each," said the girl.

Forester took out the money, and while paying the toll, he asked her where the railroad was.

" Right down here, under the bridge," said the girl.

So she opened a small gate in the large one, and let Forester and Marco go through. As soon as they came out into the open air, they saw the iron lines of the railroad, laid along upon the level ground, near the shore of the river far below them. There was a flight of steps to go down. Forester asked a man who was standing there, at what time the train would come along from Schenectady. He told them it would come at halfpast eleven. Then Forester and Marco went up the hill to the village, where they stopped at a tavern, and got a good breakfast.

Chapter VI

Marco Paul's Travels on the Erie Canal

Chapter VI: Honesty

Preparation

Print out class copies of the following:

- Chapter VI: Honesty

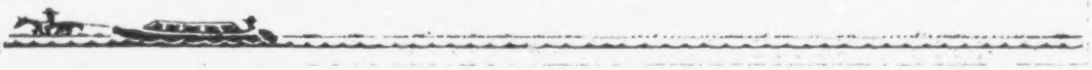
Lesson

Chapter VI focuses on "moral character." Forester teaches Marco about deception and concealment using examples that students can understand. The chapter gives a deeper look at the concept of "character," and how someone can "lose his character" through his or her actions.

1. Read aloud in class Chapter VI of *Marco Paul's Travels on the Erie Canal.*
2. The class discusses the concept and examples of "moral character" found in this chapter.
3. After classroom discussion, students answer the following questions in their journals.

Response Journal Questions

1. What is the difference between deception and concealment? Use examples from the text in your explanation.
2. What does it mean when a person loses his character? How can this happen?



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Chapter VI - Honesty

AFTER Forester and Marco had finished their breakfast, they rambled about for a time to. see the village of Canajoharie. They were very much interested in examining some stone arches on the canal side of the river. These arches were evidently part of an unfinished work, which was then in process of building, though Forester could not tell exactly what the work was.

At one place Marco and Forester saw a woman weeding in a garden. They stopped and looked over the fence. The corn in this garden was much higher than the other corn which Marco and Forester had seen along the canal; and as Forester thought the woman seemed pleased to have them notice her garden, he said to her, "Your corn has grown very well."

The woman looked up and smiled, and said something in reply; but neither Forester nor Marco could understand her. It seemed to be only a single word that she spoke, but they could not understand what the word was; so, after looking at the garden a minute or two longer, they walked on.

They came, a moment afterward, to the house to which the garden belonged. There was a little shop in one corner of the house; over the door was a sign, with a boot and a shoe painted upon it, and also some words which Forester thought were Dutch or German.

" Ah !" said Forester, " I presume that woman is a German, and does not understand English; and so she did not know what I said when I spoke to her. I recollect now that I have heard that there are a great many Germans in the valley of the Mohawk, and that some of these green meadows are called German flats."

Forester and Marco walked along, and being at length tired of rambling, they concluded to go to the railroad station, and to wait there until the cars should come. They accordingly went down the stairs at the end of the bridge, to the broad and level area which extended up and down the river, under the end of the bridge, on which the tracks of the railway were laid.

There were three or four tracks at this place, as is usual at stopping-places on railroads.This made the road very wide. On the side opposite to the river, the land rose abruptly toward the village. On the other side there was a narrow space of level land, and then there was a rocky descent down toward the water. On this narrow space was a small building, with a piazza before it. There was a room within to accommodate passengers while waiting for the trains.

Forester and Marco had just finished examining this locality, when suddenly they heard the noise of an engine approaching. It was coming down the road, and presently it appeared with the train which it was drawing, under the bridge; for the office where Forester and Marco were standing was on the lower side of the bridge. This train consisted of such cars as are used by workmen along the road. They looked like square carts on railroad wheels, only instead of being open behind, like a farmer's cart, each one was open at the side. There was a workman seated upon each of these cars, at the open side, with his feet hanging down between the wheels. This train passed rapidly by down the road, and was soon out of sight.

Just at this time, Marco happened to observe a small sail-boat with some boys in it, out upon the river. While he was looking at it, two other boys came down the railroad, under the bridge, and when they got to the corner of the office where Forester and Marco were standing, they saw it too. One of these boys was much smaller than the other, and wore a straw hat.

" See," said the small boy, " there are some fellows. out there that have got a boat."

" Yes," said the other boy, "let's go and have a sail with them." " They won't let us get in," said the small boy.

The boys looked at the boat a minute or two in silence, and then they crept down the bank, near some bushes, where they could see it better. Still they were not so far off as to prevent Marco and Forester from hearing their conversation.

" I'll tell you what we'll do," said the large boy; " we'll cut some poles here in the bushes, and go down to the bank, opposite to where they are, and call out to them to let us come on board; and then you know they'll-see our poles and think they are fishing-poles. Then they'll come and take us on board, because they'll want to see us fish."

" Well," said the small boy, " I will lend you my knife."

So he took out his knife, and the boys both went into the bushes.

In a few minutes they came out again with their poles. " Where is the boat ?" said the small boy. " I see it," said the other.

" They have gone down the river," said the small boy. "We will go along down till we get opposite to them."

So the boys walked off with their poles over their shoulders.

" Let us go too," said Marco, " and see if the boat will come ashore for them."

"No," said Forester, "we will go up the steps to the bridge, and then we can see."

When Marco and Forester got to the top of the stairs they could see the boat very distinctly, and also the two boys with their poles, who were just going down the bank to the edge of the water to try the effect of their stratagem. They could also hear their voices, though they could not distinguish what they said.

However, Marco soon perceived that the cunning device of the two boys upon the shore was successful; for the boat very soon turned in, and proceeded rapidly toward the shore, making a very beautiful appearance.

" That was a good way," said Marco, "to make the boys let them get into their boat." " Not very," said Forester.

"Why, I think it was very ingenious indeed," said Marco.

" Yes," said Forester, " it was ingenious; but an ingenious plan is not always a good plan."

" Why wasn't this a good plan ?" asked Marco. "Why, those boys," said Forester, "deceived the others, and now they will not be trusted another time. They have gained one sail by their stratagem, but they have lost their character; and to lose one's character for the sake of a sail on a river in a sail-boat is a very bad bargain. Deception is not a wise tactic. " It is never wise, is it ?" said Marco. "Yes," said Forester. " How ?" said Marco.

" Why, it is wise," said Forester, " to put a chalk egg under a hen, for a nest egg, and that is deception; it is deceiving the hen." "O, I didn't mean that," said Marco.

" No; I know you did not mean that, but still, if I had said it was never right to attempt to gain any thing by deception, it would have included that. Whenever we say any thing in a sweeping and unqualified manner, we are In great danger of including something which we don't intend."

" But," said Marco, " it is never right to deceive men or boys, is what I mean."

" Very well," said Forester, " I don't dispute that."

" And yet, you deceived me once," said Marco. "When ?" asked his cousin.

" Why, when you took me to the dentist's to have my tooth taken out, without letting me know where I was going."

Marco referred to an incident which occurred just before he left the city of New York with Forester, when Forester took him to the dentist's without letting him know where he was going, until he actually entered the dentist's room. *

" Do you think I deceived you then ?" asked Forester. " Why, yes," said Marco; " didn't you?"

" We must make a distinction," said Forester, "between deception and concealment. I concealed from you the fact that we were going to a dentist's, but did I do any thing positively to deceive you ?'

"Why, no," said Marco. "I don't know that you did."

" I am very reluctant to resort even to concealment, in the government of a pupil," said Forester; " but I should think deception absolutely wrong. I don't think I shall ever ato tempt to deceive you; and I shall never attempt to conceal any thing from you, in such a way as I did then, unless it is absolutely necessary. I should have preferred some other mode, if it had been possible to adopt any other." " What other mode ?" asked Marco.

" There are two plans which I should have preferred," replied Forester. " The best plan of all would have been for you to have told your mother that you would go at any time, of your own accord, and have the tooth extracted. But that you would not do."

" And what would have been the next best plan," said Marco.

" The next best plan would have been," said Forester, " for me to have told you frankly that you must go with me to the dentist's, even if you were unwilling, and then to have taken you there in an open manner."

"And why did you not adopt that plan?" asked Marco.

"Because," replied Forester, "I was afraid to run the risk of it. I did not know how far you would carry your opposition. I thought that perhaps you would absolutely refuse to go, or if I took you there in a carriage, refuse to get out, and so compel me to have you taken out by force. That would have been exceedingly unpleasant, you know. So I was compelled to conceal from you where I was going; but I was very careful not to do any thing to deceive you about it. That would have been more objectionable than the trouble of taking you out of the carriage by force." " Why ?" said Marco.

" Because," replied Forester, " when you found that I deceived you, you would have distrusted me another time, and I am very unwilling that you should distrust me. I think it probable that you will sometimes attempt to deceive me; but I don't think I shall ever do any thing to deceive you. If that should be so, you will soonget into the habit of placing confidence in me, but I shall lose confidence in you."

"You don't seem to have much confidence in me now," said Marco, " if you think beforehand that I shall try to deceive you." Forester smiled.

"I have heard," said Marco, "that persons ought to be thought innocent until they are proved guilty."

" No," said Forester, " that is not exactly the rule." " What is the rule, then ?" asked Marco.

" People ought to be treated as if they were innocent," replied Forester, "until they are proved guilty."

" Well," rejoined Marco, "is not that the same thing ?"

" No," said Forester. " There is a great difference between believing that people are innocent, and treating them as if they are innocent. llersons ought not to be punished or censured until they are proved to have done wrong, but we may suspect them, or even believe they are guilty, when we have reason to believe it, even without absolute proof.

Now I have considerable reason to believe that you are not a perfectly honest boy. At the same time I have no positive proof of your dishonesty in any case that has occurred since you came under my care; and, therefore, I treat you as if you were innocent, do I not ?" " Yes, sir," replied Marco.

" But then," continued Forester, " it would be very foolish for me to believe that you are honest, when I have no reason for believing it. That would be only to expose myself to be deceived." Marco did not answer.

"Your mother believes that you are an honest boy, doesn't she ?" asked Forester.

" Yes," replied Marco. "I suppose she does."

" And isn't she exposed to be often deceived by you on that account ?" Marco did not answer.

" Mothers are very unwilling to believe that their sons can deceive them. That is one reason why it is particularly wrong for a boy to attempt to deceive his mother. It is making a very ungrateful return for her kindness and confidence.

" Besides," continued Forester, after a short pause, "it is very unwise to attempt to gain any thing by any false pretenses; for such a course soon destroys one's character. And a good character will help a boy get a great many more enjoyments than any cunning. Cunning will last a little while, but soon exhausts itself; but character will last always. If you could establish a good character with me, so that I could trust you implicitly, I should be able to allow you a much greater degree of liberty than I could if I suspected your honesty. I had a boy with me once who lost his character by one single act of deception.". " What was it ?" asked Marco.

" Why, he knew another boy, who was going one afternoon into the woods a gunning. It was in raspberry time. There are a great many raspberries in the pastures and woods in Vermont.

"Is it raspberry time yet, in Vermont?" asked Marco.

" No," replied Forester. "Raspberrv time will not come this month yet. Now Charles," continued Forester,

Was the boy's name Charles ?" said Marco. "Yes," replied Forester, " and he wished to go into the woods with this boy to see him shoot birds. He also wished to fire the gun himself once or twice, if the boy that had the gun would let him."

"What was the boy's name that had the gun ?" asked Marco.

" Jeremiah," replied Forester. " So Charles came to me and asked me if he might go a raspberrying with Jeremiah. I told him, yes. And afterward I found that he had been a gunning."

" Is there any harm in going a gunning ?" asked Marco. " It is too dangerous an amusement for boys," said Forester. " Charles knew very well that I should not have let him go, if I had known that there was to be a gun in the case."

" It seems to me that this was concealment, and not deception," said Marco.

" It was pretty near the line between the two," replied Forester; " and yet I think it was a decided case of deception. For when he asked me to let him go a raspberrying, he meant to lead me to suppose that that was really the object of the excursion."

" How did you find out that they went a gunning ?" asked Marco.

" Why, first," said Forester, " I noticed something in his air and manner when he asked me to let him go, which did not appear quite frank and open. I did not pay particular attention to it at the time, but I recollected it a few minutes afterward. Then I thought that I would go after him at a distance, so as to keep out of his sight, and yet see where he and Jeremiah would go, and what they would do." " Well," said Marco, " and did you do it?"

" No," replied Forester; " on second thoughts I concluded that I would not resort to any secret means to discover the truth, but would proceed in a frank and open manner. So I did nothing about it till he came home that night, and then I took him with me to walk in the garden, and there I told him that I had some reason to suspect that he had not been quite honest with me, but that he had had some other object in view that afternoon, in going away with Jeremiah, than to get raspberries." " And what did he say ?" asked Marco.

" Why, he held down his head and looked guilty, and then presently said that he had been a gunning."

Here there was a pause, during which Marco seemed to be seriously reflecting on what he had heard.

" It is always best to be honest," said Forester; " and I intend on my part always to be honest with you. Whether you will always be honest with me or not, time will show."

Chapter VII

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The Learning Page... lesson plans

Marco Paul's Travels on the Erie Canal

Chapter VII: The Pass of the Mohawk

Preparation

1. Print out class copies of the following:
    - Chapter VII: The Pass of the Mohawk
2. Primary source materials for Chapter VII are available on the following pages. To obtain larger images suitable for classroom distribution, click on each of the thumbnails. Print out copies of the two gallery pages and/or the pages containing the larger images:
    - Primary Source Materials for the Transportation Corridor Through the Mohawk Valley
    - Primary Source Materials for Train Transportation

Lesson

1. Before reading the chapter, share maps and photographs showing the "transportation corridor" through the Mohawk Valley with the students.
2. This is an opportune time to reinforce earlier discussions about the geography of New York and its impact on transportation.
3. Have students examine sketches, drawings, and pictures of early locomotives, cars, inclines, etc., in order to visualize train transportation during the middle 1800s.
4. Read aloud in class Chapter VII of *Marco Paul's Travels on the Erie Canal*.
5. After classroom discussion, students answer the following questions in their journals.

Response Journal Questions

1. Why does the person who guides the locomotive receive more pay than the fare collector?
2. Why did Forester say that Marco should not be in charge of guiding a locomotive? Use details from the story to support your statement.
3. Make a sketch of the Pass of the Mohawk which shows the Erie Canal, the Mohawk River, the turnpike, and the railroad all coming together.

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Chapter VII - The Pass of the Mohawk

WHILE Marco and Forester were sitting thus upon the stairs engaged in conversation, they suddenly heard the sound of a locomotive coming up the road. " There come the cars," said Marco.

" It sounds like a locomotive," said Forester; " but it can not be time yet for the train from Schenectady."

" It is coming at any rate, if it isn't time," said Marco; " I can see it through the trees."

"It is a freight train," said Forester.

There are two kinds of trains of cars drawn by locomotives upon railroads, one to carry passengers and the other for merchandise, which is called in such cases freight. Forester thought, from the appearance of this train, that it was a freight train.

" No," said Marco, " I know what it is now; it is that train which went down a few minutes ago, with workmen in each car. See, they have got the cars all filled with stones advanced quickly along the road, and soon passed under the bridge and disappeared. Each car was filled with stones, and had also a workman sitting on the edge of it.

It was as Marco said. The train had gone down the road a little way after a load of stones, and now they were returning. They were going to take them up to a place where they were wanted for building an embarkment. The cars advanced swiftly along the road, and soon passed under the bridge and disappeared. Each car was filled with stones, and had also a workman sitting on the edge of it.

Marco and Forester waited here about half an hour longer, and then, as the time for the arrival of the great passenger train drew nigh, various persons began to collect about the station. Some came to see the cars arrive and depart; some came to go in them, and others were persons belonging to the road, who came to render any assistance which might be needed.

At length the train appeared in sight at a distance down the river. The smoke of the locomotive was first seen through the trees. Then the long line of windows in the sides of the cars came gliding into the view. As the train approached, it seemed to advance more and more rapidly, with a thundering noise; but it slackened its speed when it had got pretty near the station, and at length came to a stand with the passenger cars exactly opposite to the building.

One of the cars was marked over the door with the words Way Passengers. Forester and Marco perceived at once that this was the car for them. So they got into it, and some of the other persons who had been waiting for the cars at the station with them, got in too.

In a very few moments the conductor, standing upon the platform, by the side of the train, called out in a loud voice, " All ABOARD ! and immediately afterward he gave a signal to the engineer; and then the engineer moved the iron lever which admitted the steam into the cylinder, and thus set the locomotive and the whole train in motion. The car which Forester and Marco were in, started with a jerk, and then trundled on, going gradually more and more swiftly, until it attained a great speed.

Forester and Marco sat near a window on the side of the car nearest to the river; and as they were whirled swiftly along upon the bank of it, they had beautiful views of the water and of the green fields, and sometimes of villages beyond.

At one time Marco's attention was suddenly arrested at the sight of what seemed to be a long low building, with a row of windows in the side of it, which seemed to be moving. It was gliding smoothly along through a green field, among some trees, on the other side of the river.

"Why, Forester what is that ?" said Marco.

But before Forester had time to answer the question, and in fact almost before Marco had spoken the words, he perceived that what he saw was a canalboat, and that, instead of being in a field, as he had at first supposed, it must in reality be in the canal. He could not see the canal, however. The bank of the canal, on the side toward him, was of course a little higher than the water, and it consequently concealed the water from his view.

"Perhaps I can find the horses," said Marco to himself.

So he looked along in the direction towards which the boat was going, and there he saw, at some distance before it, two horses walking slowly along. There was a boy mounted upon one of them. These horses were walking upon the towpath, which was on the top of the bank of the canal. The towpath was on the side of the canal toward Marco, so that he could see the horses very plainly. Marco watched them until they disappeared behind some trees, and a moment afterward the boat disappeared too.

After this, Marco found that he could trace the course of the canal on the other side of the river, as he sat at his window in the car, very well, by means of the towpath, which continued in view for a long time. He saw several boats, too, going and coming, with the horses belonging to each one at a short distance before it. Once a packetboat came along. There were a great many men standing upon the deck. Marco thought it was a very singular spectacle to see a company of men gliding so smoothly along through a field, without moving their feet. ·

Marco saw the turnpike road too, which passes up the valley of the Mohawk, together with the railroad, the river, and the canal. At one place the railroad came very near the turnpike, and at that place there was a man coming by with a wagon drawn by two horses. The horses were afraid of the locomotive and the train. The man stopped them, jumped off the wagon, and went to hold their heads. They looked very much frightened, but the man succeeded in holding them still until the train had gone by.

Presently after this, Marco's attention was arrested by a peculiar sort of sound, halfway between a hiss and a whistle, which seemed to come from the engine. At the same moment he could perceive that the train was slackening its speed. "What's the matter now ?" said Marco.

" Perhaps we have come to a stopping place," replied Forester.

But the train did not stop, though it continued to go slowly, and every now and then Marco could hear the strange whistling sound from the engine. "I'll look out and see what's the matter," said Marco.

" Be very careful," said Forester, "and do not put your head out very far."

The cars of this train were not constructed like those in use at the present day, but were divided into separate parts like coaches, with two seats in each part, extending from side to side. Marco was sitting on the back seat of the car, near the window, and Forester on the front seat, opposite to him. So that if Marco looked out he could see on before the train, while Forester's face was turned the other way, so that he could only see the road behind them. " I see what the difficulty is," said Marco. " What is it ?" rejoined Forester. " A cow," said Marco "A cow ?" repeated Forester.

"Yes," said Marco; " there is a cow running along by the side of the road. I wonder he does not whip up, and drive right by her."

"That would be dangerous," said Forester; "for the cow might just at that moment run across the road, and then the locomotive would run over her." " Well," said Marco, " that would be just good enough for her. She has no business to be here, in the way."

"I don't think that she is to blame," said Forester. 4' Probably her owner turned her out here, to graze along the sides of the railroad."

" Then it is her owner that ought to be run over," said Marco.

"No," said Forester; ~~~ I don't think he deserves so severe a punishment. Perhaps he is a poor man, and has no other pasture for his cow."

Just at this moment both Forester and Marco perceived that the train had started on, and was beginning to go at full speed again. At the same instant they saw the poor cow standing by the side of the road, crowding herself up close to the wall, as the train swept swiftly by. She held her head over the wall, and looked this way and that, apparently very much frightened.

" He had to manage very carefully to get by," said Forester." A great many persons would have got out of patience, after trying a few minutes to get by the cow, and then would have gone on recklessly." "Yes," said Marco "I should."

"I think it very likely; and therefore you would not be a suitable person to have charge of a train of cars. You would do perhaps to collect the fares, but it would not be safe to trust you with the guidance of the locomotive."

" Well," said Marco, " if I were obliged to go in a railroad train for a living, I would as lief collect the fares as guide the locomotive."

"Only you would get better pay, perhaps, for taking charge of the locomotive," replied Forester. " Why ?" asked Marco.

"Because," said Forester, " it requires patience, and skill, and steadiness of mind. Those employments which require high mental qualifications are always better paid than others. There is great responsibility attached to them usually. For instance, the running over of a cow might cost the owners of a railroad thousands of dollars." " O, cousin Forester !" said Marco.

"Certainly," said Forester "for it is very probable that it would run the train off the track." " Well, and what then ?" asked Marco.

"Why, it is very likely it would break the engine, and it might cost a thousand dollars to repair it. Besides, some of the passengers might get their limbs broken, and so the company would have to pay damages."

" Do the company have to pay when any body gets hurt ?" asked Marco.

" Yes," replied Forester, " if the damage is occasioned by their fault."

"But it would not be by their fault," said Marco; " it would only be the fault of the engine man."

" Yes, but the engine man is their agent. They choose him and employ him, and commit the engine and the lives of all the passengers to his care; and so they take the responsibility of investing him with power, and if he is unfaithful or careless, they must pay the damage."

" I should think that the engine man ought to pay the damage himself," said Marco.

" He ought," replied Forester, "that is, he is bound to the company to pay back to them all that they pay on account of his carelessness. When any damage is done, the company must first make it good to the person who suffers. Then they may make the agent that did the mischief pay them, if he has got money enough. But generally he has not got any money, and so they are very careful to employ only discreet and faithful men."

While Marco and Forester had been engaged in this and in similar conversation, the engine had been rapidly conveying them up the valley. They stopped once at a station to let some way passengers get out, and to take in others At length they perceived that the valley through which they had been traveling for so many miles was beginning to grow very narrow. The mountains on each side grew more lofty, and they approached nearer to the bed of the river, leaving only a contracted passage of a quarter of a mile in width between rocky precipices. They were beginning to enter the Pass of the Mohawk.

For there is a place here called the Pass of the Mohawk. It is where the river flows through a narrow passage in the mountains, with extensive ledges of rock and lofty cliffs on either hand. As the train of cars advanced up this defile, Forester and Marco perceived that the mountainous ranges approached nearer and nearer, until the river, the turnpike, the railroad and the canal were crowded close together and Marco could look down upon them from the window of the car, running side by side, and hemmed in on either hand by precipices of ragged rocks.

The track for the rails was, in fact, for a long distance cut out of the rocks, there being no room for it on the level land near the river. Next to the railroad at this place was the turnpike, and close beyond the turnpike was the river, with only a narrow gravelly bank between. Then, very near to the bank of the river, on the other side, was the canal, with barely room for the towpath between them; and beyond the canal a perpendicular wall of ragged rocks arose, with high mountains covered with evergreen forests beyond.

The water in the river did not look calm and deep, as it had done among the meadows below. It was noisy and shallow, and it came tumbling along over a rocky bed. Marco asked Forester if he thought it would be a good place to catch trout, on some rocks which he pointed out. But Forester did not know.

In the mean time, the railroad turned and twisted up a winding ascent, cut out in the rock, crowding harder and harder upon the turnpike which was between it and the river. At length the turnpike had to turn short to the right and run under the railroad, to get out of the way. After this the railroad kept along close to the edge of the water, until a large village came suddenly into view. It lay upon both sides of the water, directly before them. " This must be Little Falls," said Forester. " How do you know ?" asked Marco.

" Why, it is about time for us to get to Little Falls," said Forester in reply; " and, besides, I know that Little Falls is in just such a situation."

The train rolled slowly into the village, and came to a stand at a depot opposite to a large hotel. The building was called the Railroad Hotel. As soon as the cars ceased to move, a young man came out from the hotel and passed along to all the cars, opening the doors and saying at each car, —" They stop here ten minutes." This was to let the company within the cars know that there would be time, if they wished, to get out and take some refreshment.

Accordingly, the gentlemen began to corm out in great numbers from all the cars, and to hasten across a broad graveled space by the roadside, to the hotel. Forester and Marco followed them.

There was a piazza extending along the whole front of the house, with several doors leading from it into a large hall. Forester and Alarco entered with the rest. They found a long table spread in the hall. It extended through almost the whole length of the room. It was nearly covered with refreshments for the travelers. There was a row of cups and plates along on the outer edge of it, and behind these there were pitchers of coffee and milk, sugarbowls, plates of pie, cake, ham, chicken, apples, and oranges, — every variety of food, in short, suitable for a luncheon for travelers. Behind the table were several waiters, in attendance, to help the company to what they wanted, and to take the pay.

" Come, cousin Forester," said Marco, " let us have some luncheon too."

" No," said Forester, " not now. This will be only a hurried luncheon. We will wait until the train has gone, and then have a regular and quiet dinner."

The hall was full of bustle and confusion. Some were taking refreshments themselves; others were hurrying to and fro, to carry cups of coffee and little plates of cake to the cars, to ladies who were under their charge, and who had preferred not to leave their seats; others were laying down bank bills or pieces of money, in payment for what they had taken, and receiving small coin in exchange. Forester and Marco having nothing to do with this scene, went out through a door at one end of the hall, which led into a small parlor adjoining. Here there was a table, with newspapers and prints upon it, and also some chairs and a sofa. Forester put his carpetbag and umbrella down at the end of the sofa, in a corner of the room, and then took his seat, with Marco by his side.

In a few minutes the locomotive bell began to toll, which was a signal for all the passengers to get into the cars again. The sound of this bell greatly increased the hubbub and confusion; men were running to and fro, in a greater hurry than before, and crowding into the doors of the cars. At length the doors were shut by the conductor, and the signal given. The whole train then started and began slowly to move away, leaving Marco and Forester in their little parlor alone. They were surprised to observe what a sudden change was made in the scene by the departure of the cars. A moment before all had been noise, tumult, and confusion. But when the sound of the engine died away in the distance, they found themselves left in a scene of almost entire silence and solitude.

Chapter VIII

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The Learning Page... lesson plans

Marco Paul's Travels on the Erie Canal

Chapter VIII: Perplexity

Preparation

Print out class copies of the following:

- Chapter VIII: Perplexity
- Primary Source Materials for Little Falls, New York (both gallery page and pages with larger images, as needed)

Lesson

In this challenging chapter, Forester is "perplexed" about the flow of the water in the aqueduct. The chapter also contains accounts of feeder canals and the old locks in Little Falls.

1. Read aloud in class Chapter VIII of *Marco Paul's Travels on the Erie Canal.*
2. Have the class examine engravings and photos of the Little Falls aqueduct and maps of Little Falls during this time period.
3. After classroom discussion, students answer the following questions in their journals.

Response Journal Questions

1. Describe two things that Marco found especially interesting in Little Falls.
2. What is "perplexity"?
3. Why was Forester perplexed?

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Chapter VIII - Perplexity

AFTER Marco Paul and Forester had had their dinner, they went forth with feelings of eager interest in quest of the aqueduct.

" How do you know where to find it ?" asked Marco.

" There can not be much difficulty in finding it, I think," said Forester; "for such a work must be a very conspicuous object in such a village as this."

They were on the north side of the river. The village, however, extended to both sides. As they walked along they could see the river tumbling over the rocks, wherever a street or an interval between blocks of buildings opened a view. After following the line of the railroad a short distance, they turned down toward the river by a broad street, which seemed to be a great thoroughfare, and which Forester therefore thought would probably lead to a bridge.

He was right in this conjecture. The street conducted him and Marco between buildings, R ~~ ~~ luz ~~u5W which seemed to be mills, machineshops, and foundries, and at length it came to a bridge which led over what appeared to be a canal. " Here is the canal," said Marco. " Not the Erie canal," said Forester. " Why not ?" asked Marco.

" Because," replied Forester, " that is on the other side of the river." " This is a canal, at any rate," said Marco.

He judged that it was a canal by its being lined with walls of stone in some places, and by the regularity of the bank in other places, showing that it was an artificial construction. On farther examination they found that it was parallel to the river and on a much higher level, and they observed that there was a current in the water.

" Perhaps," said Forester, "this may be the water which goes in over the aqueduct and feeds the canal. Let us go on and see."

So they walked on. Presently there came into view the deep and rocky bed of the Mohawk itself, with what Marco at first thought were two bridges leading over it. The two bridges were very near each other, side by side; so near that it seemed to Marco that he could throw a stone from one to the other. 11sU c,ur wall.

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In a moment, however, he perceived that they were not both bridges; for the lower one, instead of having a roadway passing over upon it, had only the water of a canal. There was a kind of a narrow walk on each side, but nothing but water in the middle. " That must be the aqueduct," said Forester. " Yes," said Marco; " let us go and see it."

So they left the street and went across a vacant piece of land between two piles of boards, until they came to the bank of the canal. They found now that the canal which they had observed before they came in sight of the aqueduct turned its course as soon as it passed under the bridge where they had crossed it, and expanded into a broad basin, and from one side of this basin there was a sort of branch which led directly to the aqueduct, and so across the river.

"Now," said Forester, " we will go on to the aqueduct, and walk along one of the sidewalks, and then we shall see the water pouring over the aqueduct, across the river, into the Erie canal."

Marco found in this case an illustration of the truth of what Forester had told him of the value of some preliminary knowledge, to give interest and zest to traveling and observation. He was very much interested in going on with Forester to see the aqueduct. Even so slight a circumstance as the expected flow of the water across the river from north to south, instead of coming in the opposite direction, interested him strongly, on account of his having previously become acquainted with the facts and principles on which the determination of the current, as he supposed, depended.

There was a canalboat lying in the aqueduct itself. It was a coarselooking boat, in the form of a scow, and it was held in its place by a cable. The cable was fastened by one end to the bow of the boat, and by the other to a post set in the bank. There was a little cabin built in the stern of the boat, and a young girl was looking out at the window of it.

" Where are you going in this boat ?" said Marco to the girl. To Rochester," said the girl. " When are you going ?" asked Marco. " I don't know, sir," said the girl.

Just then, Marco, who was standing while he said this on the stone sidewalk, just at the beginning at the aqueduct, looked down between the boat and the wall, and to his great surprise he observed that the water, instead of flowing on toward the Erie canal, which was on the other side of the river, was in reality flowing away from it. It was coming toward the side of the river where they then were. He could see the direction of the current very plainly by the ripples between the side of the boat and the edge of the wall.

" Why, Forester !" said Marco, " the water is running the wrong way."

Forester looked down at the ripples which Marco pointed out to him, in silence.

" Is not the canal over that way ?" continued Marco, pointing over the river. " Yes," said Forester, " I suppose so."

" Then the water is all running away from it. The aqueduct is emptying the canal as fast as it can, and they call it a feeder."

Forester made no reply, but looked first into the aqueduct, then over toward the canal, and then back to the basin on the other side. He did not know what to make of the case.

" Little girl," said Marco, "what makes the water in this aqueduct run the wrong way ?" " Sir?" said the girl. " Is not this a feeder ?" said Marco. " I don't know, sir," said the girl.

" Hush, Marco," said Forester; and so saying, he drew him along toward the middle of the aqueduct. "Don't trouble that poor girl with your questions. It is not probable that she knows any thing about it."

" Why, cousin Forester," said Marco, " she has been sailing over it all her life, — it's likely. I expect she lives on the canal. I wish you would let me go in and see the room in the canalboat that she lives in."

" That you may do," said Forester, " and I will wait here until you come back."

So Marco went and stepped on board of the boat, and then proceeded to the cabin door. The door was open, but he had to go down several steps to enter it. The interior was very plain, and very plainly furnished, and yet it had a cheerful and pleasant expression.

There was a stove in one corner, with a pipe, which, after being bent twice at right angles, ascended and passed out through the deck of the boat, overhead. There were some clothes hanging upon a line which was stretched across the corner of the cabin, behind the stovepipe. This line extended from a window on one side to a nail fastened in the wall on the other. The window was open.

There was a shelf on one side of the cabin, with plates upon it. There was a little rail extending along this shelf in front of the plates, to keep them from being thrown down by the motion of the boat. Under the shelf was a picture hung against the wall, and under the picture a table. There were various things upon the table, such as a bottle, a dipper, &c. hIarco examined all these things with great interest. as he stood at the door.

The window was rather high, but Marco perceived that the girl could look out at it by standing up. While Marco was standing at the door, the girl was sitting down upon a stool. Marco remained at the door a little time talking with the girl, and then he went back and rejoined Forester.

Forester and Marco then walked along upon the aqueduct sidewalk. This sidewalk was formed of large square stones, beautifully hewn, and there was a strong iron railing on the outer side of it, toward the river, so as to keep the passengers from falling off. There was, however, no railing on the inner side, that is, the side next the canal. But this was not necessary, as the water in the canal was nearly on a level with the sidewalk itself. But it was very far down from the aqueduct to the river below.

Marco stopped to lean upon the iron railing and look down. He could see the water of the river, tumbling along in a narrow rocky channel, under the arches of the aqueduct.

" I should like to be down upon those rocks with a good fishingline," said Marco.

Forester paid no attention to what Marco was saying. He was looking at the bridge, which was full in their view a little way up the stream. The bridge was supported by two or three arches, and was built of stone, in a very substantial manner.

" Let us go around and get on the bridge," said Marco; " and then we can see the aqueduct better." " Very well," said Forester.

" O see, what a funny house !" said Marco, pointing before them.

Forester looked in the direction which Marco indicated, and he saw a house, which was painted red and white, in small alternate squares, like a chequerboard. It was but a short distance beyond the aqueduct, and was on the corner between the canal which came in over the aqueduct, and the great Erie canal beyond. When they came to this corner they found the Erie canal before them, extending up and down, parallel to the river, as far as they could see. There was a lock very near, with a boat going through it. Forester and Marco stopped to see the boat locked through.

Forester looked around a little to find somebody whom he might ask for an explanation of the difficulty in regard to the current of water over the aqueduct, but he did not succeed. The man who had charge of the lock looked very rough and illnatured, as was very often the case, in respect to workmen along the canal. Besides, as he was apparently only a common laborer, Forester thought it was very probable that he would not know any thing about it.

After the boat had been locked through, Forester and Marco walked along the bank of the canal until they came opposite to the bridge which they had seen just above the aqueduct. They walked over upon the bridge, and took a view of the aqueduct from it.

" I confess I don't see how it happens that the water is flowing out over the aqueduct," said Forester. " Nor I," replied Marco.

" That must be the aqueduct, certainly," said Forester, though he spoke in a tone of doubt.

" I'll look at the description again," he continued; and so saying, he took out his little map, and spread it open upon the railing of the bridge, so that he and Marco could see it.

He found a brief description of the Erie canal upon a corner of the map. There were several aqueducts named in this description, and among others the one at Little Falls was particularly referred to.

" I will read the description," said Forester, "and you may see whether it corresponds to this aqueduct."

" Length two hundred and fourteen feet,' " said Forester, reading from his map.

" Well," said Marco; " but I don't know whether that is correct or not, for I can not tell how long this aqueduct is."

So Forester looked up, in order to estimate the length of the aqueduct before him, by his eye. He said he thought it was as much as two hundred and fourteen feet long.

" Constructed of hewed limestone,'" continued Forester.

" The stones are hewed," said Marco, " but I don't know whether they are limestone or not."

" I presume they are limestone," said Forester, — " supported by three arches." " Yes," said Marco, " that is right."

" The center arch of seventy feet chord, spans the river, the water of the river principally passing under it.' " " Yes," said Marco. " With a swift current,'" continued Forester. " Yes," said Marco.

" Twenty feet deep at low water," continued Forester.

" I can't see how deep it is," said Marco; ; but I don't believe it is twenty feet."

" 'And on each side,'" resumed Forester, " ' an arch of fifty feet chord.' "

" Yes," said Marco; " but I don't see what good the side arches do, since the river all runs through the middle arch."

"It does now," said Forester, "while the river is in its ordinary bed; but when it is raised by the rains, or the melting of the snows in the spring, perhaps it requires all three of the arches to carry the water."

" ' These arches,' " continued Forester, reading again from the description on the corner of his map, " 'rest on abutments and piers of solid limerock.' "

" What are abutments and piers ?" asked Marco.

"Abutments are the foundations built up at the ends of a bridge, in the bank; and piers are those built in the middle, in the stream. When the stream is narrow, it is only necessary to have abutments, — one in each bank, — and then the bridge rests upon them, without any support in the middle. But if the stream is so wide that the bridge must have some support in the middle, they build up a pier. A pier stands independently; whereas an abutment rests against the bank on one side."

" Yes," said Marco. " There are two piers and two abutments to this aqueduct."

" ' And surmounted,'" said Forester, reading again from his map, " ' by coping' "— " Coping ?" said Marco, in an inquiring tone.

" That means," replied Forester, " the course of stone laid along upon the top of the aqueduct on each side, to make the sidewalks."

" Is a coping a sidewalk, then ?" asked Marco.

" O no," replied Forester, " a coping is any course of stone laid on the top of a wall of masonry, to cover and protect it. They use the coping for a sidewalk here, — that's all."

By thus examining the work before them particularly in connection with the description, Forester and Marco were convinced that it was without doubt the aqueduct; but the direction of the current of water through it remained still a mystery. Forester proposed to Marco that they should go up the river a little way, and examine the canals and cuts which were connected with it and with the Erie canal, and see if they could understand what course the water was intended to take. And they accordingly did so. But they soon got entirely lost and confounded in a perfect maze of locks, canals, cuts, waste ways, sluices, feeders and basins. Forester became greatly perplexed. Here and there he could trace the intent and design of some detached part of the work, but he could not get any clear or connected idea of the whole. There seemed to him to be a great many more channels and locks than were necessary for the canal, and he did not know for what other purpose they could be intended. As for Marco, he gave up at once all idea of understanding such a complicated system; and he walked about with Forester, paying but little attention to his surmises and speculations.

The reason why the works were so unintelligible to Forester, was that that he did not understand some important facts in relation to them. Before the Erie canal was made, there had been a short canal cut around these falls, with locks, and waste weirs, and other appurtenances; and these all remained, some full and some empty. Some parts of this old canal had been converted to a useful purpose in the construction of the Erie canal, and some parts had been abandoned. Then the Erie canal had been enlarged at this place, recently, and a new feeder provided; and there were mills and other machinery which required a supply of water and appropriate channels to convey it. All these things made the hydraulic works in the village of Little Falls very complicated. It would have required close study for a week for Forester and Marco to have understood them perfectly.

After rambling about for an hour or two, they returned to the hotel. Forester had enjoyed the romantic scenery of the place, and had been much interested in what he had been able to understand of the construction of the works, and the operation of the water. Marco had been somewhat interested too, though, on the whole, his attention had been more strongly attracted by the house painted in squares like a chequerboard, than by the cuts and canals. There was another thing also which pleased him exceedingly. It was the name which he saw painted upon the stern of a sort of scow which was floating in the basin. The name was Skipjack. Marco declared that if he ever had another boat or vessel, of any sort or size, he would name her Skipjack.

Chapter IX

The Learning Page...

lesson plans

Marco Paul's Travels on the Erie Canal

Chapter IX: A Project

Preparation

Print out class copies of the following:

- Chapter IX: A Project

Lesson

Teachers may choose to focus on one or more of a variety of subjects from Chapter IX. The journal response questions for this chapter suggest some possibilities.

1. Read aloud in class Chapter IX of *Marco Paul's Travels on the Erie Canal*.
2. After classroom discussion, students answer the following questions in their journals.

Response Journal Questions

1. Write a paragraph demonstrating how Forester compares a regular canal to a short canal, which must circumvent falls and rapids (comparison writing).
2. Write a paragraph giving Forester's explanation of the differences between the Niagara River and other rivers (geography).
3. Marco hopes to build his own canal when he returns to Vermont. What has he learned that should enable him to do this? How will he do it? Do you think that he will succeed? Why? (transfer of learning).
4. Marco wonders how a canal can be built without a great deal of confusion. Discuss the formation and workings of a company that builds canals (economics).

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Chapter IX - A Project

FORESTER and Marco went home, to the hotel, to tea. They took their seats on the sofa in the little parlor, waiting for the bell to ring.

" Are there any canals in Vermont ?" asked Marco.

" Very few," said Forester; "but you might make one when you go there." " I make one !" exclaimed Marco.

"Yes," said Forester; "I think you could make a small one, around the falls in our little brook." "Have you got a brook ?" asked Marco.

"Yes; there is a small brook on the grounds behind my father's house, and there are a great many little waterfalls upon it. Now when there are waterfalls or rapids on a river, so that boats can not pass up and down, it is very common to make a canal around the place, and then the boats can be locked up and down through the canal ."

"What do you mean by locking them up and down ?" asked Marco.

" Why, passing them up and down through the locks."

"Why need they have any locks ?" asked Marco. " They might dig the canal deep, and so let the boats sail right round through the canal."

" No," said Forester; " that would not do; for, as the water above the falls is higher than it is below, if a canal were to be cut around them, and no locks made in it, the water would run round through the canal as swiftly as it had done in the natural bed of the river; and so there would be nothing gained. They have to put locks in the canal, so as to let the boats down gradually from the higher level to the lower level."

" Then why do they dig any canal at all ?" said Marco. " Why don't they build the locks right in the river ?"

" Because that would stop the stream. The locks do not allow the water to pass through, excepting one lock full every time a boat passes; they want to leave the channel of the river open, therefore, in order to let the water flow on regularlv. So they make a canal by the side of the river, and build the locks in that. Such canals are very short, and they do not have any towpath."

" Then where do the horses walk," said Marco, " to draw the boats ?"

" They do not have any horses," replied Forester; ~~ "horses are only used on long canals, where they have canal-boats. These short canals, around falls and rapids in rivers, are only for the riverboats, which come up by sails. Such riverboats are generally large flatbottomed boats, each being rigged with a great square sail. The wind blows them up the river until they get to the falls, and then the men take down the sail and push the boat into the lock with poles. Then they shut the lower gates of the lock, and let the water in through the upper gates. This buoys the boat up, and when it is level with the water above the upper gates, the men open the way out of the lock and push the boat along. Thus they lock the boat through the canal. When they have got it through into the river above the rapids, they hoist the sail again, and sail away." " Suppose the wind is not fair ?" said Marco.

" Then they must wait until it is fair," replied Forester.

" I think it would be better," said Marco, "to have a towpath all along the river, and so take horses to draw the boat; then they would not have to wait for a fair wind."

"They can not have a towpath along a river. very well," said Forester. "Why not ?" asked Marco.

"Because," said Forester, "in the freshets the water would rise and overflow the towpaths, and so the horses could not get along."

"But they ought to make the towpath so high," rejoined Marco, " that the water of the highest freshets would not overflow it."

"Then," replied Forester, "when the river was low, the water would be so far below the towpath that the horses could not draw the boat." " I didn't think of that," said Marco.

" Some rivers rise and fall much more than others," said Forester; " and there is one which scarcely rises at all; so they can have a towpath on the shore of that." " What river is it ?" asked Marco.

" The Niagara river," replied Forester.— " There are very peculiar reasons why the Niagara river does not rise much."

" Don't it rain much in that country ?" asked Marco.

" Yes," replied Forester; " but then the Niagara river, instead of coming down from the mountains, flows out of a great lake.' " What lake ?" asked Marco. " Lake Erie," replied Forester.

" The same lake that the Erie canal comes out of ?" said Marco. " Yes," replied Forester, " the same."

Then Forester took out the pocketmap, the same which he had spread out upon the railing of the bridge, when he was comparing the description of the aqueduct with the aqueduct itself, and he showed Marco the Niagara river, flowing north from Lake Erie to Lake Ontario. It would be well for the reader, before going any farther, to take a map, and find the Niagara river upon it too. " What a short river !" said Marco.

" Yes," replied Forester; " it is short, but it is large. There is a great deal of water flowing through it. And you see, Marco, that it comes out of this great lake, — lake Erie. Now lake Erie does not rise and fall much." " Why not ?" asked Marco. "Because, if all the rivers which flow into it were to rise very high, and pour a great deal of water into the lake, the freshets would only last a very few days, and in that time they would only raise the surface of such a great lake a very little. And so when the rivers which flow inte the lake get very low, the lake does not subside very suddenly, for the water flows off slowly from such a great surface. Thus the lake keeps always pretty nearly at the same level.

" Then, besides," continued Forester, " the falls of Niagara, which are in the middle of Niagara river, between lake Erie and lake Ontario, tend to keep the water in the river very nearly at the same level; because, when the lake is rising, all the superfluous water is drained off very rapidly over the falls. Rivers which are very long, and which have no great lakes upon them for the superabundant water to spread out upon, and no high waterfalls, to drain off the water rapidly, are the ones which rise and fall the most. The Ohio and the Mississippi rise and fall very much indeed." " How much ?" asked Marco.

" I have heard of their rising thirty feet, and I don't know but they do a great deal more," replied Forester. "The Niagara river scarcely rises at all. And I believe there is a place where the Erie canal comes out to the river, in which they have made a towpath on the bank, so that they draw the boats along upon the water of the river." " How do you know ?" asked Marco.

" I was there some years ago, and I believe I recollect seeing it. But I did not take particular notice of the circumstance, for I did not know then that there was such a difference in rivers, in respect to the rise and fall of the water, and so I was not particularly interested in observing this towpath, as a proof that the Niagara river always continued at nearly the same level. I should like now," continued Forester, " to be on the banks of the Ohio a short time, to examine the marks of high and low water, and then again to do the same at Niagara river, so as to observe the difference."

" Yes," said Marco, " I should like to do that."

"But now," continued Forester, " as to your canal in Vermont. I think you might dig a canal around one of the little waterfalls in the brook. You could slope the banks properly, like a real canal, and make a towpath."

" But what should I do for a lock?" said Marco.

"I could make the lock for you," said Forester.

" Could you ?" asked Marco, eagerly; " how would you make it ?"

" I would make a box," said Forester, " without any top or ends. It should be a little longer and wider than you would wish the boat to be, which you were going to lock up and down through it." "How large a boat should I have?" asked Marco.

" I should think," replied Forester, " that you might have your boat about a foot long and six inches wide."

"I should like to have it a little larger than that," said Marco.

" The larger your boat is, the more hard work will be required to make the canal; for the canal must be in proportion to the size of the boat. However, we could determine that, after looking at the ground. When the box for the lock was done, I should have to make gates, one at each end of it." " That would be very hard," said Marco.

" No," said Forester, " for it would not be necessary for me to have the gates made on the same plan with those on a great canal. I could have the gates made to slide up and down, instead of having them open like great doors." " Would that be easier ?" asked Marco.

" Yes," replied Forester; " I could nail cleats in on the bottom and sides of the lock, for the gate to rest against. There must be a set of cleats at each end. Then I should make two square gates, just large enough to fit in at the ends; and when they were in their place the water would press them against the cleats. Then I would have a handle to each of the gates for you to pull them up by, whenever you wanted to lock a boat through.

"I think it would be well," continued Forester, " for you to make your canal at some fall or rapid of so small a descent that one lock would be sufficient for the difference of level. You would have to be very particular, however, in placing your lock, after I had got it made for you."

"Why should I have to be very particular about that ?" asked Marco.

" Because you would have to fix it in its place before you had brought the water along in the canal to it. If you could bring the water along to the place in the canal, the surface of the water would show you exactly the right level for the lock. But as you could not bring the water there, you would have to measure the level very carefully."

"Why could not I bring the water along first ?" asked Marco,

" Because it would flood the place where you were going to put your lock, and keep you from working. You might, however, dig the canal along pretty near to the place, and let the water in so far, and thus get the right level. But it would be necessary to keep the place where you were going to set your lock, dry, until the lock was in its place, and the earth rammed down hard all around it."

" Have you got some tools where you live in Vermont," said Marco, " to make the lock with ?"

" Yes," replied Forester, " we have got tools enough for such a work as that. Though I think I should let you make the lock, under my supervision."

" Well," said Marco, " I like the plan of making a canal very much."

" Yes," rejoined Forester, " I think it will be a very good amusement. You can make a flatbottomed boat and put a sail to it. You can also put something into the boat to represent a cargo of merchandise, and then if the wind blows up the stream, you can carry the boat down below the canal, and put it into the water, and let the wind carry it up to the canal. Then you can take down the sail, and lock the boat up through the canal, and when it has come out into the brook above the rapids, you can hoist the sail again, and let the boat finish her voyage."

Marco's countenance expressed great satisfaction and pleasure at this proposal. Forester told him also that the plan would not only afford him amusement, but it would be of great advantage to him. " What advantage ?" asked Marco.

"First, it will impress very strongly upon your mind all that you have learned of the Erie canal. For while you are at work upon your little canal, the various facts which you have learned, and the incidents which you have met with, will be continually coming to your mind.

" And then," continued Forester, "I presume that Ivory will help you, and he will learn something." " Who is Ivory ?" asked Marco.

"Ivory is a boy," replied Forester, " that lives very near my father's house; and he will come to play with you sometimes."

"What sort of a house does your father live in ?" asked Marco.

"O, you will see when we get to Vermont," said Forester. I had rather tell you about Ivory now, than about our house." "Well," said Marco, " tell me about him."

"Ivory," said Forester, " is a very sober boy." But here Forester's attempt to tell Marco something about Ivory was interrupted. For at this point of the conversation they both heard a bell ringing in the adjoining hall; and a moment afterward a waiter came in to invite them up stairs to tea. So they went up stairs, Marco resolving that he would certainly make a canal as soon as he got to Vermont, and a flatbottomed boat to go through it. He determined also that he would name the boat Skipjack. He thought that that name would make Ivory laugh, even if he was a sober boy.

After tea Marco and Forester went out to take a walk again, along the canal. When they reached the margin of the water, they sat down upon some blocks of white marble which were lying upon the ground, and began to look around upon the scene before them.

After a short pause, Marco commenced the conversation by saying,

"How do they manage the work, cousin Forester, in digging a canal, so as not to have confusion ? If I were to attempt to make a canal in Vermont, with the other boys, it would be all disputing and confusion." " Yes," said Forester, "I presume it would." " How do men manage it " asked Marco.

" Why, if men are going to make a canal," said Forester, " the first thing is to form a company." " A company !" repeated Marco.

"Yes," replied Forester; " that is, unless the canal is to be made by the state. I will suppose, however, that a canal is to be made by a company, and explain to you the method that is adopted in that case." " Well," said Marco.

"They form a company in this way," said Forester. " They open books and advertise the plan in the newspapers, and then call upon all persons who choose to join in the undertaking, to come and put down their names. Every man who puts down his name has to pay a hundred dollars." " A hundred dollars !" said Marco.

" Yes, — that is, if he subscribes for one share," replied Forester. " The price of one share in such works is usually a hundred dollars. A man may put down his name for as many shares as he pleases. He may take a hundred shares if he pleases, and then he must pay ten thousand dollars. Of course, he will then own all those shares of the canal, and will have his proper proportion of the profits de rived from the tolls, when the canal gets into operation."

" Yes," said Marco. " I would subscribe for a thousand shares if I were going to put my name down on the books." " If you had the money," said Forester.

" Yes," said Marco, " and I would have the money."

" The persons that own the shares," continued Forester, "are called the stockholders. They have papers, — printed papers — which state how many shares they own. These papers are called certificates of stock. Shares in such things are called stock."

" Yes," said Marco, "I have heard of stock in New York. They sell it in Wallstreet."

"When the shares are all taken up," said Forester, " the stockholders have a meeting, and choose directors, — generally about five."

" Yes," said Marco, " my father is a director. But what are the directors for ?" " They are to make the canal."

" Hoo—oo—oo," said Marco, in a tone of great surprise. "I should not think that five directors could make such a long canal." "Oh, they don't make it with their own hands," said Forester, smiling. " I did not mean that." " What then ?" said Marco.

" They divide the line of the canal into portions called sections, and then they advertise for proposals from men who will undertake to make the canal along these different sections. These men are called contractors." " Contractors ?" repeated Marco.

" Yes," said Forester. " There is a certain class of men called contractors, who have a great many laborers under their employ, and own carts, and horses, and wheelbarrows, and tools of all kinds, and they agree to make the canal along a certain section for so much." " For how much ?" asked Marco.

" Why, for just as much as is agreed upon," said Forester. "The directors generally let out the section to the lowest bidder. That is, when a section is advertised, the contractors go and look at it, and make up their minds what they can do it for. They then write upon a paper the sum that they are willing to undertake the section for, and carry it to the directors. When all these papers are given in, the directors open them, and give the section to the one who will make it for the least money." " That is a very good way," said Marco.

" The directors," continued Forester, " let out the mason work in the same way, such as the locks, and the bridges, and the aqueducts, and every thing else that is required along the canal. As fast as the various sections are finished, the directors pay the contractors."

" Where do they get the money?" asked Marco.

"O, they take the money that the stockholders paid in when they subscribed for their shares," said Forester.

" Oh, yes," said Marco. "I forgot that. But suppose there is not money enough."

"Then they make an assessment on the shares," said Forester, " and raise more." " What do you mean by that ?" asked Marco.

" Why, they divide the amount of the additional sum which they wish to raise," replied Forester, "among all the shares, and so make each stockholder pay his portion. Or else they get more people to come and subscribe, and so make more shares."

" Then," continued Forester, " when the canal is finished, they appoint a superintendent to manage it, and to collect the tolls. The superintendent Davs the money that he vets for tolls to the directors, and the directors divide it among the stockholders twice a year."

"I think that is a very good way," said Marco.

"Yes," replied Forester, "it is regular and systematic. The work is divided into separate departments, and each man has his proper duty to perform; and thus there is no disorder or confusion."

Chapter X

Marco Paul's Travels on the Erie Canal

Chapter X: The Steersman

Preparation

Print out class copies of the following:

- Chapter X: The Steersman

Lesson

1. Read aloud in class Chapter X of *Marco Paul's Travels on the Erie Canal.*
2. Marco meets several people in this chapter who behave or say things that perplex him. Center classroom discussion on aspects of human nature, behavior, and the impressions that we make on others.
3. After classroom discussion, students answer the following questions in their journals.

Response Journal Questions

1. What did Marco learn about the German woman even though he could not understand what she said?
2. If **you** worked on a line boat on the Erie Canal, what job would you want (driver, captain, steersman, cook, or bowsman)? Why?
3. Why do you think that the old man called Marco "Bob?"

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Chapter X - The Steersman

AFTER this Marco and Forester took a walk to see more of the canal. They passed across the river on the aqueduct, and came out to the canal at the chequered house again. They then followed the canal up, going from lock to lock, as it gradually ascended along the bank of the river.

They stood upon the bank at one of the locks, seeing a boat go through. It was about halfpast six o'clock, and a calm and pleasant evening. The boat was not a packet, but it had several passengers on board. There was a woman sitting upon the deck, forward, with a little child by her side. The woman was knitting. The child was playing with a little basket.

" Cousin Forester," said Marco, " let us get aboard of that boat and go along the canal a little way."

" Then how shall we get back ?" said Forester.

"Why, we can find some other boat coming back," replied Marco. " The boats are going and coming all the time."

The boat was then in the lock, and was rising very rapidly, as the water boiled up under it from the passages which they had opened through the bottom of the upper gates. Marco was in great haste to have Forester decide in favor of going, so that he might jump on the boat and be buoyed up with it. So Forester went to the edge of the lock with him, and they both stepped on together.

When the lock was full, the upper gates were opened and the boats sailed along. Forester and Marco sat down near the woman and attempted to talk with her, but they found that she could not speak English. She was a German woman. The child was just learning to talk, and Marco was very much amused at hearing so small a child speaking a foreign tongue. Presently, Forester took out a piece of paper from his pocketbook and said that he was going to draw a view of the canal, as it appeared before them while they were sailing along.

Every time they came to a bridge, the steersman, who stood in the stern of the boat, would call out, "BRIDGE !" in a sharp tone, and then all who were sitting upon the deck would bow their heads to pass under, as has already been explained. This gave Forester so much inconvenience in his drawing that he concluded to go and take his seat on the little low deck at the bows of the boat. There was a small deck very near the bows in almost all the boats, made so in order to furnish an entrance to the cabin from the front of the boat. Forester took his place here, and was now no longer in danger of the bridges.

While he was sitting there Marco wanted to look at the map, in order to see from the profile whether there were many locks in that part of the canal where he was sailing. So he asked Forester for it, and Forester handed it up to him from his place on the little deck below. Forester charged him not to get so interested in looking on his map as to forget to bow his head when the steersman called out Bridge. So Forester went on with his drawing.

Marco looked at the map for a short time, and then folded it up. The little German child seemed much attracted by the map, and especially by the red covers, which were brought very distinctly to view when Marco folded it up. Marco tried again to talk with her, but she could not understand what he said. She extended her hand toward Marco, and said something to him in return, but he could not understand her language any better than she could his. He understood her gestures, however, and he handed her the mapbook. She was seated all the time upon the deck, a little way from her mother.

Marco's attention was here arrested by the sight of another boat coming into view on the canal before them. It was advancing to meet the boat which Marco was in.

" Look, cousin Forester," said Marco; "here comes a boat; you must make it in your drawing; — quick, before it gets away."

A moment after he had said this, the boat came on to meet them. It was loaded with barrels. Marco supposed they were barrels of flour. On the side of the boat were painted the words, NEW YORK AND ERIE LINE. Marco then remembered that he had seen the words ROCHESTE LINE painted upon the boat which he was in. He had noticed it at the time that he first saw the boat, when it was rising up in the lock.

Marco rose from his seat and walked toward the stern of the boat, following the other boat as it passed them. While he was looking at it, the steersman called out, " BRIDGE ! LOW BRIDGE !

Marco jumped down to the place where the steersman was standing, which was a low part of the deck near the stern; and thus he glided under the bridge in safety.

As soon as he came out from under the bridge, he saw, at a short distance before them, a man upon the towpath, with a cane in one hand and a small bundle in the other. He appeared to be an old man. He stood at the edge of the towpath near the water, and he made a signal to the steersman to take him on board. The boat was at this time in the middle of the canal, and if she had kept on in the same course, it would have been impossible for the man to have got on board.

" That man wants you to stop for him, I expect," said Marco.

The steersman said nothing, but he pressed the helm off to the farther side of the boat, and this caused the bows of the boat to turn in toward the shore. Thus the boat glided along very near to the bank where the man was standing, but without at all diminishing the speed. The old man stepped on board at the stern, and then the boat soon swept on out into the middle of the canal again. The old man ascended to the deck, walked on toward the bows, and then stepped down and took his seat on the little forward deck with Forester. Forester was on one side of the door leading into the cabin, and he on the other.

" Where is that man going ?" said Marco to the steersman.

" I expect he is going to Herkimer," said the steersman.

Here there was a pause. Marco wanted to talk with the steersman, but he did not know exactly what to say. He waited, therefore, hoping tha the steersman would say something to him. But the man did not appear much inclined to converse. In fact, Marco thought that he was rather a surly looking fellow.

" I wish you'd let me steer the boat a little," said Marco. " Poh, — you can't steer," replied he. "But I want you to teach me," said Marco.

"Teach you !" said the steersman, in a tone of contempt; — and just at that instant the boat happening to come to a turn of the canal, which rendered it necessary for him to crowd the helm hard over toward the side where Marco was standing, he added in a very rough manner, " Get out of the way !"

Marco retreated a step or two to a place where he could not be in the way; and there he stood and looked into the face of the steersman with an expression of astonishment. The man paid no attention to him, but looked straight ahead, with a countenance stern and unmoved.

" Were you ever a boy yourself, sir ?" said Marco.

The rigid features of the steersman's iron visage slowly relaxed into a sort of smile at this question, and he replied, after a moments pause, "And when you wanted to learn, did they tell you to get out of the way?"

"Yes," said the steersman; " they treated me a great deal worse than that. But what do you want to learn to steer for ? You'll never go on a canal." "Very likely I shall," said Marco. " Why isn't your father rich ?"

"Yes," said Marco, "he is rich enough now, but I expect he will fail one of these days. However, if I should go on the canal, I should rather drive the horses than steer." " Then," said the steersman, " you had better go and get Joe to teach you to ride, — not ask me to teach you to steer." " Is the driver's name Joe ?" asked Marco. " Yes," said the steersman. " Joe what ?" asked Marco.

" I don't know," said the steersman. "I never heard any other name for him." " Where does he live ?" asked Marco.

" I don't know," said the steersman. " He lives on his horse pretty much, I think."

"And do you think he'd let me ride," said Marco, (if I should go and ask him ?" " Yes," said the man, " I think he would."

"Well," said Marco; "only you must steer the boat up near the bank, so that I can jump out." " Very well," replied the man, " go to the side, and be all ready to jump."

The steersman turned the boat in a little, so as to bring it up pretty near to the bank, but he was very careful not to get it so near as that Marco could jump across to the land. He wanted to make him jump and come down into the edge of the water. So when he got it as near as it was going, and Marco stood poising himself on the edge of the boat, he called out aloud, "Jump! Jump!!"

In a moment the boat was rapidly receding from the bank again. Marco turned round and looked at the steersman. He did not know whether he was making a fool of him or not. The man laughed.

" Why did not you jump ?" said he. " You might have been on the horse by this time, and so rode to the station. But look there," continued the steersman! pointing down into the canal by the side of the boat, " there goes your book."

" It's cousin Forester's map," said Marco. "Dear me ! it has fallen into the water. Stop the boat ! stop the boat !"

Nothing was done, however, to stop the boat. It glided steadily on its way, and soon left the square red spot, which the covers of the map made upon the water, far astern. Marco ran forward to tell Forester that his map was overboard.

Marco was stopped, however, when he reached the place where the German child was sitting, by observing that the child had the map itself, still in her hands. She had torn it out of its cover, and had only thrown the cover overboard. She was just then beginning to tear the map. Her mother happened to look round and see her just as Marco came up.

The mother seemed very much concerned, and she seized the child and took the map away. In doing this she handled the poor child very roughly, and seemed to be very much displeased with it. At this moment Forester looked behind him and perceived what was going on. He came up upon the deck and told the woman that the accident was of no consequence; it was an old map, he said, and he did not care about it at all. She did not understand one word that he said, but she went on talking, herself, in German, with great fluency, pointing first at the map and then at the child; and then she advanced to the child and took hold of her shoulder, and began to shake her.

Forester shook his head, and made signs that she must not punish the child. He pointed to Marco and made believe strike him, and then made signs of giving the map to the child. He meant that Marco was to blame for giving the map to the child, and not the child for tearing it

It is very uncertain whether the German woman understood Forester's signs or not. But as he could see very plainly from her countenance and actions that she was very much concerned at the accident, so it is not improbable that she understood from him that he did not care much about it. Pretty soon Forester went back to his place, and Marco followed him to see his drawing.

The old man was sitting there too, quietly leaning upon the top of his cane; and Marco soon found that he was as goodnatured and talkative as the steersman was morose and sullen.

" Well, Bob," said the old man, " and how do you get along on the canal ?"

Marco was smoothing out the remains of the map, and folding it up. He looked up from his work at the man and said, " My name is not Bob, sir." " What is your name ?" asked the old man. " Marco, sir," was the reply.

"Well, Marco, how should you like to go driver in the Rochester line ? See that boy out there on the horse. You could ride like him all day long."

"Perhaps I should get tired of riding all day long," said Marco.

" Very well," rejoined the old man, " then you could jump off and walk alongside the team. You would have to do that often in the cold mornings, to keep warm."

" How far should I have to ride in a day?" asked Marco.

" Why, there are stations all along the canal," said the man, " where the horses are put up. You would ride from one station to another." " And then how long should I rest ?" " You would rest until it came your turn to go out again; sometimes an hour, and sometimes a day. First in, first out, is the rule."

Marco could not understand the old man's account of the system by which the boats of a line are towed along the canal. But he received the idea that the driver's life was a very irregular one; and he saw at once that it must be a life of great exposure and fatigue.

" How many hands does it require to manage a lineboat ?" asked Forester.

" Why, there is the captain, and the bowsman, and the steersman, and the cook. Though the cook is generally a woman. If they go night and day, they must have a double set."

" What does the bowsman do ?" asked Forester.

"Why, he takes care of the towrope," said the man, "and sees to securing the boat in the lock when she is run in." " Here comes another boat," said Marco.

" Yes," said Forester, " and it is getting dark; so I think we had better go back on her."

So Forester gathered up and put away his drawing materials, and then he went and found the captain, and gave him a little change to pay for the passage which be and Marco had had in his boat. Then they bade the old man goodbye; and they also nodded to the German woman and her child, though they knew it would do no good to say any words to them. By this time the two boats were opposite to each other, and Forester and Marco stepped across to the one which was going down the canal; and in the course of half an hour they were landed at the lock opposite to the aqueduct, at the village of Little Falls.

As they were walking along toward the hotel, Marco said that he was sorry that their map was torn up and spoiled.

" That is no great calamity," said Forester. " Besides, I can tell you a way by which you can make it useful, yet." "How ?" asked Marco.

"Why, I have been thinking," said Forester, "that when we get home to Vermont, I should let you take for one of your first exercises, an essay on the Erie canal."

"I don't know how to write essays," said Marco.

"So I supposed," replied Forester, "and therefore I was going to let you {earn. 1 thought 1 would make you a small book, and let you write in it all that you can remember about the Erie canal. And you can have two maps in it now; for you can cut out of this torn map the profile of the canal which is in one corner, and also that part of the middle of the map which contains the course of the canal. These you can paste on fresh sheets of paper, so as to get a new margin around them, and then make a new border with a pen. Then I will show you a way to paste and fold them into your book, and so you will have an essay on the Erie canal, illustrated with a profile and a map."

Marco smiled at this proposal, and said that he should like it very much.

After this there was a pause for a few minutes, until they had nearly reached the hotel. Then Marco broke the silence, by saying,

" I should like to understand German, cousin Forester."

" So should I," said Forester, " and I intend to learn it."

"Do you think I could learn it?" asked Marco.

" Certainly," said Forester; " you are better able to learn German than that little child is; and she is learning it very fast."

Chapter XI

Marco Paul's Travels on the Erie Canal

Chapter XI: The Ride

Preparation

Print out class copies of the following:

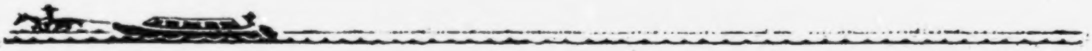
- Chapter XI: The Ride

Lesson

1. Read aloud in class Chapter XI of *Marco Paul's Travels on the Erie Canal.*
2. Lead discussion around the fact that Marco expects to be punished for a mistake that he makes. Forester knows that Marco will learn more from the mistake itself than from any punishment.
3. After classroom discussion, students answer the following question in their journals.

Response Journal Question

1. Why didn't Forester reproach Marco for his foolishness concerning the horse?



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Chapter XI - The Ride

MARCO had a ride, at one time, during his travels along the canal, which interested him very much, though it ended rather disastrously. The circumstances were these.

It was at the time while he and Forester were stopping to spend the night at a small town on the line of the canal, when they were returning toward the Hudson river. They spent the night at the town, in order to have a more comfortable bed to sleep in than theberths of the packet. They were intending to take the boat again in the morning after breakfast. They found, however, on inquiring, that it would be two or three hours before the boat would come along. The question then arose, what they should do in the mean time.

" I vote to stay in the house and read," said Forester.

"And I vote to go out and take a walk and see the canal, " said Marco. " We will draw lots for it," said Forester.

"Well," replied Marco; " I will make the lots."

"Oh, we don't need any actual lots," said Forester. "Go to the window and look out, and if the first thing that you see is a dog, you get it, and if it is a horse I get it."

Marco ran to the window. He looked this way and that, up and down the street, as far as he could see, but there was neither a dog nor a horse in view.

" Wait there then," said Forester, " until one or the other comes along. In the mean time I will be reading the newspapers."

Marco was not obliged to wait long. It happened very curiously that a wagoner was coming by pretty soon, who had two horses and a dog. He kept the dog to watch his wagon when he left it in the streets, or in the tavernyard, at night Now, as this wagon came into view before the window where Marco was sitting, the dog was walking along underneath it.

" It's a dog ! It's a dog !" said Marco, clapping his hands.

Forester looked up from his reading, and saw the wagon and the dog. The dog was walking very demurely beneath the wagon, little dreaming what consequences were pending upon his presence there.

" Yes," said Forester, "there is a dog, but there are horses too."

" Never mind," said Marco, " they all came along together."

" I think the horses came first," said Forester.

Marco laughed, but did not reply. Presently he called out to Forester, saying,

" Here is a lineboat coming along the canal. I wish, cousin Forester, that you would let me go and see if the boy won't give me a ride a little way on his horse."

" That will hardly do, I am afraid," said Forester, talking half to himself, as he went on reading his paper.

" I should like to be a canalboy," said Marco. " I should be riding all the time." Forester made no reply.

" Cousin Forester," said Marco, " I wish that you would let me go and get a ride on that horse."

"No," said Forester, "but this I will do. If you will go out and hire two good saddle horses, we will both go and take a ride." Marco appeared extremely delighted at this

proposal. He took his cap and sallied forth immediately to find the horses. The landlord of

the tavern had one horse which he said that they might have; and he recommended to Marco to go to a certain Mr. Ball, who kept a stable for the canalboat horses, to get another.

Marco accordingly went in pursuit of Mr. Ball's. After meeting with various adventures in finding the place, Marco came at length to a sort of street near the side of the canal, where there were a great many small shops and stores. From some of these buildings there issued the sound of a great deal of pounding and hammering. Marco came at length to a great stable door, over which was the sign, D. BALL, STABLING FOR HORSES. " This is the place," said Marco to himself, and he walked in.

In the middle of the stable floor a groom was at work rubbing down a canalboat horse, which seemed to have just come in. Another horse was standing near, waiting, apparently, for his turn. There was a door at one side which led into a little office where there was a desk.

There was a roughlooking man standing in this door. His feet were set apart in the doorway, and his hands were in his pockets as if he had nothing to do but to keep people from going into the office.

The man surveyed Marco with rather a disdainful air as he entered, and then said, " Well, Bob, and what do you want ?"

"My name is not Bob," said Marco. "I don't see what makes every body call me Bob."

The man make no reply to this, though his stern features relaxed into some semblance of a smile.

" Is Mr. Ball here ?" said Marco. " I want to see Mr. Ball."

" And what do you want of Mr. Ball ?" said the man. " They call me Ball sometimes." "I want to get a horse," said Marco.

"A horse !" replied Mr. Ball. " You are not old enough to be trusted with a horse." So saying, Mr. Ball began to survey Marco from head to foot with a look of contempt.

Marco, without appearing to be much daunted by his uncivil reception, went on to explain to Mr. Ball, that he and his cousin Forester had been spending the night at the tavern, and that they were going away by the next boat; that in the mean time, as they were to have about two hours to spare, they proposed to go and take a ride, and that they had obtained one horse at the tavern, and now wanted another. Mr. Ball heard all this story in silence, looking intently at Marco all the time, and remaining immovably in the same position as at first. While Marco had been speaking, the groom had stopped his work, and he now stood, with his brush in his hand; looking toward Marco and Mr. Ball, as if waiting for Mr. Ball's decision.

When Marco had finished his statement, Mr. Ball paused a moment, still looking at Marco, and then said to the groom, " Give him Pompey."

Saying this, he turned round, went into the office, and sat down at the desk.

The groom led Pompey out of his stall, watered him, put on the saddle and bridle, and helped Marco to get on his back. Marco, feeling quite pleased at the success of his negotiation, rode out of the stable door, and then turned toward the tavern. The horse trotted briskly with him through the streets, and he was soon at the tavern door. One of the windows was open in the room where Marco had left Forester reading. Marco rode up before this window, and leaning down, he looked in. "Forester," said he, " look here !"

Forester looked up and seemed quite surprised to find that Marco was actually mounted. He put his paper down immediately and came out. In a short time the other horse was saddled and bridled, and Forester was mounted upon him. The two riders then took their way together out of the tavern yard. " Which way shall we go?" asked Marco.

" I propose that we go up on the hills," said Forester, "and get a view of the whole valley."

"And I propose," said Marco, " that we ride along in the towpath of the canal, and see the boats."

"And how shall we decide which to do?" asked Forester. " Can't we do both ?" asked Marco.

" No," replied Forester; " there will not be time for both. I will tell you what we will do. You shall take the direction of the ride until we meet a dog, and then I will take the direction the rest of the time."

"Oh, no," said Marco, " that will not be fair: for we shall meet a dog very soon, I know, and then my direction will be ended at once."

"Then I will take the direction," said Forester, " until we meet a dog, and after that you shall have it." " Agreed," said Marco. " Then come, follow me," said Forester.

So saying, Forester turned his horse in a direction away from the village, by a road which just at this point opened before him on the right hand, and which seemed to lead of among the hills.

" I want to get out of the way of all dogs," continued Forester, " as soon as I can."

Marco laughed, and he and Forester trotted on along a very pleasant road, having a farm. house with all its sheds, barns and yards on one side, and the woods upon the other. The road soon began to ascend, winding at the same time through very picturesque and beautiful scenery.

" How pleasant it is here," said Forester; " I hope we shall not meet any dogs, I am sure, for then I suppose that you would turn immediately about, and go back to the canal."

"I don't know," replied Marco. "Perhaps I should keep on here. I like this road very much."

Presently they came to a long hill where the road ascended in a winding direction, with forests on either hand. On one side, concealed in the depths of the forest, there was a brook running along a wild and rocky bed, at the bottom of a deep ravine. Marco and Forester could hear the sound of the water, but they could not see the stream itself, so dense was the foliage by which it was hidden.

" I mean to get off," said Marco, " and walk up this hill."

" I advise you not to do any such thing," said Forester. " Why not ?" asked Marco.

" Why I hardly know why not," said Forester, hesitating. " I have a sort of an idea that it is not wise. You will run a great many small risks by getting off." " What risks ?" asked Marco.

"Why, you may fall and hurt yourself in dismounting," replied Forester; "then perhaps your horse will get away, or you may not be able to get on again."

" No," said Marco, "I can get of without falling, I am sure. Then I can keep hold of the bridle all the time, and so prevent the horse from getting away. And when I get to the top of the hill I can lead him up to the side of the fence, or up to some great stone, and so get on again."

" Well," said Forester, " you can do as you please. Perhaps you will not meet with any mishap. Though I have generally found that when we are dealing with horses the best way is go forward pretty steadily, and with as few experiments and changes as possible."

Marco, who was always restless and fond of change, concluded, since Forester did not absolutely forbid his dismounting, to carry his original plan into effect. So he stopped the horse in the road, loosened his feet from the stirrup, and throwing his right leg over the horse behind him, so as to bring both legs on the same side, and then grasping the saddle with both hands, he slid down safely to the ground. He then called out to Forester, who had in the mean time gone on a little before him, saying, " See ! Forester." Forester looked around, smiled Red, and said, " Dismounted."

" Yes," said Marco. " I want to walk up the hill; and besides, I am going to get a new switch out of the bushes."

"A new switch !" said Forester. " I advise you to be very careful. Getting new switches with a strange horse, is a very specially hazardous business."

Forester had been slowly riding on, during this conversation, up the hill, Marco following him and leading his horse by the bridle. Presently he let go the bridle for a moment, – having his hand, however, all ready to grasp it in a moment, if the horse should make any movement indicating a design to run away. But Pompey walked steadily on with the most honest and innocent expression of countenance that could be imagined.

" See, Forester," said Marco. " Pompey is walking along by himself, without my holding him at all."

Forester turned round, and looked somewhat doubtfully, and yet with a smile upon his countenance, at this proof of Pompey's docility.

After a time Marco took hold of the bridle again and threw it over, of the horse's neck, and then passed his arm through it. He thought that in this way he could hold the horse more conveniently while he was cutting his switch. He led the horse accordingly out to one side of the road, so far that with the bridle on his arm he could reach and pull down a slender branch of a birchtree which was growing near the wall. He took his knife out his pocket and began to cut the switch off. Pompey paid no attention to these proceedings, but putting down his head, began quietly to crop the grass by the roadside, while Marco finished cutting his switch. Marco then returned to the middle of the road again, and began to go up the hill.

Forester had reached the top of the hill already, and was waiting there for Marco. It was a wild and picturesque place, with rocks upon one side of the road and woods upon the other. There was an opening among the hills in one direction, through which there was to be seen a beautiful view of the valley below. Forester was admiring this prospect, as he sat upon his horse, and was endeavoring to trace the line of the canal along the valley.

Marco came walking up the hill by the side of the horse, and every now and then he would let go the bridle for a minute or two, and allow the horse to walk alone. Presently he began to walk a little before, leaving the horse to follow him like a dog. He felt more and more confidence in Pompey at every step, and when he came near the top of the hill he called out to Forester to see, saying,

" There is no danger of his getting away, at all. He will follow me just like a dog. Whoa !"

As Marco said "Whoa," he turned round and looked Pompey full in the face with a very authoritative air. Pompey stopped immediately. " Now come along again !" said Marco.

Marco moved forward as he said this, expecting Pompey to follow him; but Pompey did not move.

Marco turned round to repeat his command, but just then the thought of going home to his stable happened to come into Pompey's mind; and he accordingly began to turn too at the same instant. Marco made a hasty effort to seize the bridle, but in vain. The horse shook his head and trotted on a few steps down the hill.

" Forester ! Forester !" exclaimed Marco. " Come quick ! The horse is getting away."

Forester, who had been sitting upon his horse at the top of the hill all this time looking on, was afraid to advance suddenly toward Pompey, lest it should make him run away the faster. " Softly ! softly ! Marco," said he.

Marco walked along after the horse. The horse turned his head and looked at him, but continued to walk down the hill. Marco followed him but Pompey went faster and faster, and presently began to trot, and was soon wholly lost to view.

Marco was very much chagrined at this result of his experiments upon Pompey's docility. In fact he was at first quite frightened, but

Forester told him that there was no great harm done.

" The horse will go directly down to his stable, I presume," said he, " and we shall find him safe there when we get down."

Marco was much relieved when he found that Forester, instead of reproaching him for his foolishness, spoke kindly to him, in respect to the affair. In fact Forester thought that Marco would be sufficiently punished by his own mortification, without any harsh words from him. So he said,

" Never mind it, Marco. You have only lost a part of your ride. And now you can have your choice either to walk back to the village, or ride back behind me."

"Well," said Marco, "let me get up behind you."

So Forester drove his horse up to a great stone by the side of the road, and there Marco succeeded in mounting behind him; and thus they went back to the village, riding double.

Chapter XII

The Learning Page...

lesson plans

Marco Paul's Travels on the Erie Canal

Chapter XII: The Outlet

Preparation

Print out class copies of the following:

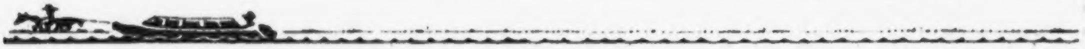
- Chapter XII: The Outlet
- Primary Source Materials for Troy, New York (both gallery page and pages with larger images, as needed)

Lesson

1. Read aloud in class Chapter XII of *Marco Paul's Travels on the Erie Canal.*
2. Marco and Forester arrive in Troy where there is a connection between the canal and the river. Students find that the ending isn't what they expected!
3. After classroom discussion, students answer the following questions in their journals.

Response Journal Questions

1. How did you feel about the way the book ended?
2. If **you** had written the final chapter, what would have happened and why?



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Chapter XII - The Outlet

It was nearly nine o'clock when Forester and Marco reached the hotel. They remained there till halfpast ten, waiting for the night train which was coming down from Utica. The hotel was quiet and solitary, though preparations were made to receive a large company of guests when the train should arrive. The long table in the hall was covered with refreshments as it had been in the morning; and the waiters walked to and fro in expectation of the arrival of the company.

At length the sound of the engine was heard, and a few minutes afterward the great train, borne on its twenty or thirty heavy iron wheels, came rolling on, in front of the hotel. The passengers came out and thronged into the house, renewing the scene of noise and confusion which Forester and Marco had witnessed in the morning.

While this confusion was at its height, our two travelers took their seats in one of the cars.

There was nobody in it. It was unarked over the door " WAY PASSENGERS." Marco expected that somebody would come to get in before the train should start; but no one appeared. When the signal bell rang, the conductor came and shut the door, and the train began to move, leaving Forester and Marco a whole car to themselves.

There were two seats in the car, a front and a back seat. They each took one and laid themselves down. In a few minutes they were both asleep, and though Forester awoke, at intervals, when the train stopped at the various villages on the way, Marco slept soundly through the whole, being entirely insensible to every thing that passed, until Forester aroused him and told him that they had arrived at Schenectady, and that it was morning.

A few days after this, our travelers came to Troy. If the reader will look upon the map, he will find that Troy is on the North river, a few miles above Albany. Troy, as well as Albany, is a considerable city; and it transacts a great deal of business by means of the canal. For it will be seen, by looking upon the map, that the Mohawk river empties into the Hudson, but a short distance above Troy; and as the Erie canal follows the valley of the Mohawk down to the Hudson, the canal itself comes out to the banks of the Hudson nearly opposite to Troy.

It is true that the canal does not terminate here. By looking again upon the map, the reader will see that when the canal reaches the banks of the Hudson, it turns and follows the river down to Albany, where it finally terminates in a great basin, which opens upon the river.

There is, however, a communication between the canal and the river at Troy. So that the boats, after they come through the canal, can come out into the river at Troy; or they can continue in the canal until they get down to Albany, and then come out into the river through the great basin there.

Albany is upon the West side of the river which is the same side with the canal. But Troy is upon the East side. Therefore, if a canalboat is going to Albany, it is not obliged to cross the river; but if it is to stop at Troy, it comes out of the canal into the river on the side opposite to Troy, and then they have to push the boat across the river with poles; for there can not well be a towpath made over a river so that horses can go across. There is a ferry, however, at the place where the boats cross, by which men can go over at any time; and a small town has grown up on the west side of the river where the canal comes down. This town is called West Troy.

Marco and Forester knew something of this, when they stopped at the hotel in Troy. That is, they knew that the canal passed along on the west bank of the Hudson opposite to Troy, and that there was a communication there between the canal and the river; but they did not know precisely where this communication was, or which way they were to go to find it.

" We must get across the river at any rate, for the first thing," said Forester. "We will go down to the shore somewhere, and look up and down and see if we can see a bridge."

There was a row of fourstoried brick stores on each side of the street which they were walking in, which prevented their seeing the river. They, however, soon found a way to go down to a landing where they could look up and down the stream. There was no bridge to be seen down the river, toward Albany; but they saw one about a quarter of a mile above them, very long. It was covered, and it looked very beautifully, as Marco thought, extending in a perfectly straight line for a great distance over the water.

Forester and Marco then left the landing and walked up the river in the direction of the bridge. When they came to enter it they were astonished at its length. It was divided into two parts; one half was for the railroad track, and the other half for common carriages. By the side of the railroad track was a sidewalk for foot passengers.

When they had reached the end of the bridge, they came out into an open country, with several roads before them, and they were at first a little uncertain which way to go. They observed, however, the appearance of a town in a certain direction down the river, and they concluded to go that way. They had not proceeded far, before they found themselves on the bank of the canal. But it looked very different here from what it had done at Schenectady. It was a great deal wider, and the banks, instead of being covered with grass and the foliage of trees, were bare and gravelly. This was because they had lately been enlarging the canal at this place, to make more room for the boats to pass and repass.

Forester and Marco walked along upon the towpath until they came to the town of West Troy. Here they found two or three large and handsome bridges leading across the canal. Here, too, was a side cut leading from the canal into the river.

"Now," said Forester, "we can see how they get the boats in and out between the river and the canal."

There was a small basin just below a bridge, on the side of the canal toward the river; and at the end of this basin there was a lock which led toward the river. Below this lock was a short canal, which led to another lock, and this second lock opened out directly upon the waters of the river. There was a boat just coming into the lower lock.

" See," said Forester, " there is a boat coming from the river into the canal; let us go and see them lock it up."

So Forester and Marco followed the side canal till they came to the second lock. They saw the boat come up through this lock, and thence to the second lock, where it was raised again. At this second lock it was raised to the level of the basin. The men then opened the gates and fastened the horses to the hoat. The driver mounted one of them, and drove under the bridge; and thus the boat was drawn along through the basin into the canal. Thus Marco and Forester saw a canalboat locked up from the river into the canal at Troy.

" I wonder what the canalboats go down into the river for ?" asked Marco.

There was a man standing near the gates of the lock when Marco asked this question. He seemed to have the charge of the lock, for he had opened and shut the gates when the boat went through. When he overheard what Marco said, he replied,

" Some of them go over to Troy to unload, and to take in a fresh cargo for the west; and some of them go down the river to New York. They are towed down by steamboats."

" Ah !" said Forester; "I did not know that the canalboats went down to New York. 1 thought that all the merchandise came up in sloops."

"That used to be the way," said the man " but slooping is pretty much done with. They take the freight up and down by canalboats and by towboats."

While this man had been speaking, Forester had observed a lock connected with the basin, which had a roof over it. It was by the side of the lock which led to the river. There was also a building at the side of it which had one or two public offices in it. Forester observed, also, some singular machinery over this lock, under the roof. He asked the man what it was for.

" That is the weigh lock," replied the man, " where they weigh all the boats."

" Weigh them !" asked Marco; " how do they weigh them ?"

" They float the boat into the lock," replied the man, " and then they shut the gates behind it, and draw off the water. This lets the boat settle down upon a frame, where it rests poised, so that they can weigh it."

So the man very civilly conducted Marco and Forester along to a door which opened into a small room in the middle of the building that stood by the side of the lock; and there they saw a large quantity of weights. They saw some apparatus there too which was apparently connected with the machinery for suspending the boat.

"But that method weighs boat and cargo all together," said Forester. " How do they know what part of the whole weight is the cargo ?"

" Oh, the weighmaster has the weights of all the boats in the canal on his register. They first weigh the boats when they are empty, and put the weight down upon the register, which is kept in the office. So they can deduct that, whenever the boat and cargo are weighed together."

" I should like to see them weigh a boat," said Marco. " So should I," said Forester.

" I expect there will be one along pretty soon," said the man; " they are coming all the time."

So the man began to look around up and down the canal; but although there were a great many boats in sight, there seemed to be none coming just then to be weighed.

Forester then thanked the man for the information which he had given them, and then they concluded to go up upon a bridge which crossed the canal just above the basin, and look at the boats as they passed alon This bridge had a covered way for carriages in the center, and two sidewalks outside of the covered way. The roof extended over the sidewalks, but there was no wall on the outer side of them; so that, standing upon one of these sidewalks, a passenger had a fine view of the canal. From one of the sidewalks one could look up the canal, and from the other down the canal, toward Albany.

There were a great many boats in sight from either of these sidewalks. Some were passing to and fro, under the bridge. Others were stationary, fastened to posts set in the bank of the canal, for the canal was so wide that there was room for a tier of boats to lie along the side of it, and yet aliow room for the other boats to pass. There was one boat in the basin, discharging a cargo of flour. There were several long rows of barrels lying upon the bank, and they were hoisting out more. They had a sort of mast raised with ropes to brace it, and there was a tackle attached to the top of it. With this tackle they hoisted the flour out of the hold of the boat.

Marco stood for some time watching the operation of this tackle. Forester told him that the rope which the men took hold of to pull by, was called the fall. There were two men pulling at the fall, and they seemed to raise the barrels of flour very easily. When the barrel which they were raising was brought up out of the hold, the men would pull it over to the pier and roll it away.

Some of the boats had women and children on board. One had a horse looking out of a window at one end of it, and a baby looking out of another window close by. Another boat, which also attracted Marco's attention, was a large flatbottomed sort of scow, shaped like the Skipjaok.

There were loose planks, black and decayed, forming a floor at the bottom. Marco said it looked like a barn afloat. It came gliding under the bridge, and when the stern came into view, Marco saw that there was a small building erected in it, in a very coarse manner. The building looked like a little shed. There was a door in the end of this little shanty, and as the boat passed farther on, Marco saw a woman in it setting the table for tea.

http://www.history.rochester.edu/canal/bib/abbott/chapter12.htm

Marco and Forester amused themselves for half an hour observing the various boats, and witnessing the little incidents which were constantly occurring. Then they came down to the shore of the river, where they found a boat, and a man to row them over the ferry. The river was full of fleets of canalboats, which had been here let out into the Hudson.

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